

The Subsistence Harvest of Harbor Seal and Sea Lion by Alaska Natives in 1994

Technical Paper No. 236

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Draft Final Report for Year Three
Subsistence Study and Monitor System (No. 50ABNF200055)
Prepared for the National Marine Fisheries Service

Alaska Department of Fish and Game
Division of Subsistence
Juneau, Alaska
July 1995

Cover. Seal grease dish in the shape of a harbor seal, Sitka (Tlingit). Dishes like these held seal oil for use at meals in southeast Alaska. The bowl, made of alder, stained black, with abalone eyes and opercula insets, was carved by Rudolph Walton. Early to mid-20th century. Photo courtesy Sheldon Jackson Museum, Sitka: **an Alaska State Museum.**

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ABSTRACT

This report describes the subsistence takes of harbor seal (*Phoca vitulina*) and Steller sea lion (*Eumetopias jubatus*) by Alaska Natives in 1994, including quantity, seasons, geographic distribution, and age and sex of the harvest. Information is summarized at the state, region, and community levels, and is compared with takes in 1992 and 1993. The research was conducted by the Division of Subsistence, Alaska Department of Fish and Game under contract with the National Oceanic and Atmospheric Administration and the National Marine Fisheries Service. Information derives from systematic interviews with hunters and users of marine mammals in 2,032 households in 59 coastal communities within the geographic ranges of the two species. Local researchers conducted most of the household interviews as part of a local and regional research network. The project received generous support from leaders of a number of Native governments, regional, and statewide associations.

During 1994, the estimated subsistence take of harbor seal by Alaska Natives was 2,621 seals, with a 95 percent confidence range of between 2,110 to 3,457 seals. Of the take, 11.8 percent (308 seals) were stuck and lost and 88.2 percent (2,313 seals) were harvested. Harbor seals were taken in 54 of 59 surveyed communities. The 1994 take of harbor seals (2,621 seals) was the lowest take estimate to date of the three survey years – 2,736 seals (1993) and 2,888 seals (1992).

During 1994, the estimated subsistence take of sea lions by Alaska Natives was 416 sea lions, with a 95 percent confidence range of between 330 to 554 sea lions. Of the take, 19.2 percent (80 sea lions) were struck and lost and 80.8 percent (336 sea lions) were harvested. Sea lions were taken in 20 of 59 surveyed communities. Like harbor seals, the 1994 take of sea lions (416 animals) was the lowest recorded of the three survey years – 487 sea lions (1993) and 549 sea lions (1992).

The age and sex structure of harvested animals in 1994 resembled those reported in previous years. For harbor seals, hunters reported taking males over females by about two to one, and adults (82 percent) over juveniles (16 percent) or pups (3 percent). For sea lions, hunters reported taking males over females by about four to one, and juveniles (68 percent) over adults (31 percent) or pups (1 percent). Struck and lost rates were the lowest reported to date for both species. In addition to detailed quantitative harvest breakdowns by community, the report describes contemporary Aleut hunting patterns for sea lions in the Aleutian and Pribilof islands.

ACKNOWLEDGEMENTS

This project would not have been possible without tremendous local support in every community where we conducted the survey. We wish to thank each tribal council, city council, and all of the regional Native organizations who facilitated our work. Cart M. Hild and Carl Jack of **RurAL** CAP assisted us in this effort and **merit** special mention, along with members of the Indigenous People's Council for Marine Mammals who reviewed the survey instruments and preliminary survey findings. Moses Dirks of the U.S. Fish and Wildlife Service helped review sections on Aleut sea lion hunting. We want to thank David **Cormany** of NMFS and Mike Williams of St. George for lodging on the Pribilof Islands. Peter Corey, curator of the Sheldon Jackson Museum in Sitka, provided the photograph of the seal grease bowl for the cover illustration. Heartfelt thanks are owed to the many elders and local marine mammal experts who allowed us to interview them at length about their lifelong use and observations of sea lions and harbor seals. In addition, we are deeply indebted to the many hundreds of hunters who volunteered to report their subsistence harvests to our staff and to locally hired research assistants.

The sixty-six local researchers who conducted household interviews deserve to be recognized individually for their high level of interest and work. We look **forward** to working with many again in the near future as the project moves into its fourth year:

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Mitchell Lind, Chignik Lake
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Fred Hamilton, Craig
Sally Krause, Dillingham
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Gilda Shellikoff, False Pass
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Agrafina Kerr, Nikolski
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Mary Malchoff, Port Graham
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INTRODUCTION

This report describes the subsistence takes of harbor seal (*Phoca vitulina*) and Steller sea lion (*Eumetopias jubatus*) by Alaska Natives in 1994. It is the third report of a four-year study of the subsistence uses of harbor seal and sea lion in Alaska. Findings for the first two study years were reported in Wolfe and Mishler (1993, 1994). The research was conducted by the Division of Subsistence of the Alaska Department of Fish and Game under contract with the National Oceanic and Atmospheric Administration and the National Marine Fisheries Service. The study was conducted in cooperation with the Indigenous People's Council for Marine Mammals and the Rural Alaska Community Action Program, organizations representing Alaska Native marine mammal hunters.

The report provides information on the subsistence takes of harbor seal and sea lion during 1994, including size, seasons, geographic distributions, and age and sex of harvested animals. Information on subsistence uses derives from systematic interviews with marine mammal hunters in 59 communities (Fig. 1, Table 2). Information was collected principally by local researchers trained in each community, working within a network of local and regional researchers organized by the Division of Subsistence.

The geographic area covered by this report was defined as the Alaska coastal waters south of Cape Newenham, including the Pribilof Islands, which corresponds with the general distributions of harbor seal and sea lion in Alaska (Figs. 2 and 3, from Burns, Frost, and Lowry 1985). The use of harbor seal and sea lion by Alaska Natives for food and raw materials has a long tradition in this part of Alaska, since before historic contact through to the present. The Alaska Native groups using harbor seal include the Aleut of the Aleutian Islands, the Alutiiq and Eyak of the Pacific Gulf coast, the Dena'ina of Cook Inlet, the Tlingit, Haida, and Tsimshian of the southeast

archipelago, and the Yup'ik of southwest Alaska. The Aleut of the Aleutian and Pribilof islands and the Alutiiq of certain communities of Kodiak Island and the Gulf of Alaska currently are the primary users of sea lion. Sea lion are used more occasionally by Tlingit, Haida, Tsimshian, and Yup'ik groups. Subsistence products derived from harbor seal and sea lion by Alaska Natives include oil, meat, and skins, as described in Wolfe and Mishler (1993).

The report is organized in several sections. The Methodology section describes the methods used to collect information. Two sections (The Subsistence Take of Harbor Seal in 1994 and The Subsistence Take of Sea Lion in 1994) present information on the statewide takes of harbor seal and sea lion, summarized by community and region. Contemporary sea lion hunting patterns by the Aleut are described in the section, Sea Lion Hunting Methods in the Aleutian and Pribilof Islands. In the Discussion section are interpretations of the 1994 survey year, including comparisons with other years. Appendix A contains a copy of the survey instrument used in household interviews with marine mammal hunters. Appendix B contains regional summaries of the subsistence takes of harbor seal and seal lion. Appendix C contains materials on the subsistence takes of harbor seal and sea lion by community.

METHODOLOGY

Information on the subsistence takes of harbor seal and sea lion in 1994 was collected through interviews with persons in 2,032 Alaska Native households in 59 coastal communities (Table 2). Respondents were asked to recall information about their household's use of these marine mammals during the previous year. The survey instrument administered in household interviews was similar to one used in 1992 and 1993, *first* developed in consultation with the Rural Alaska Community Action Program (RurAL CAP) and the Indigenous People's Council for Marine Mammals (IPCOMM) (see

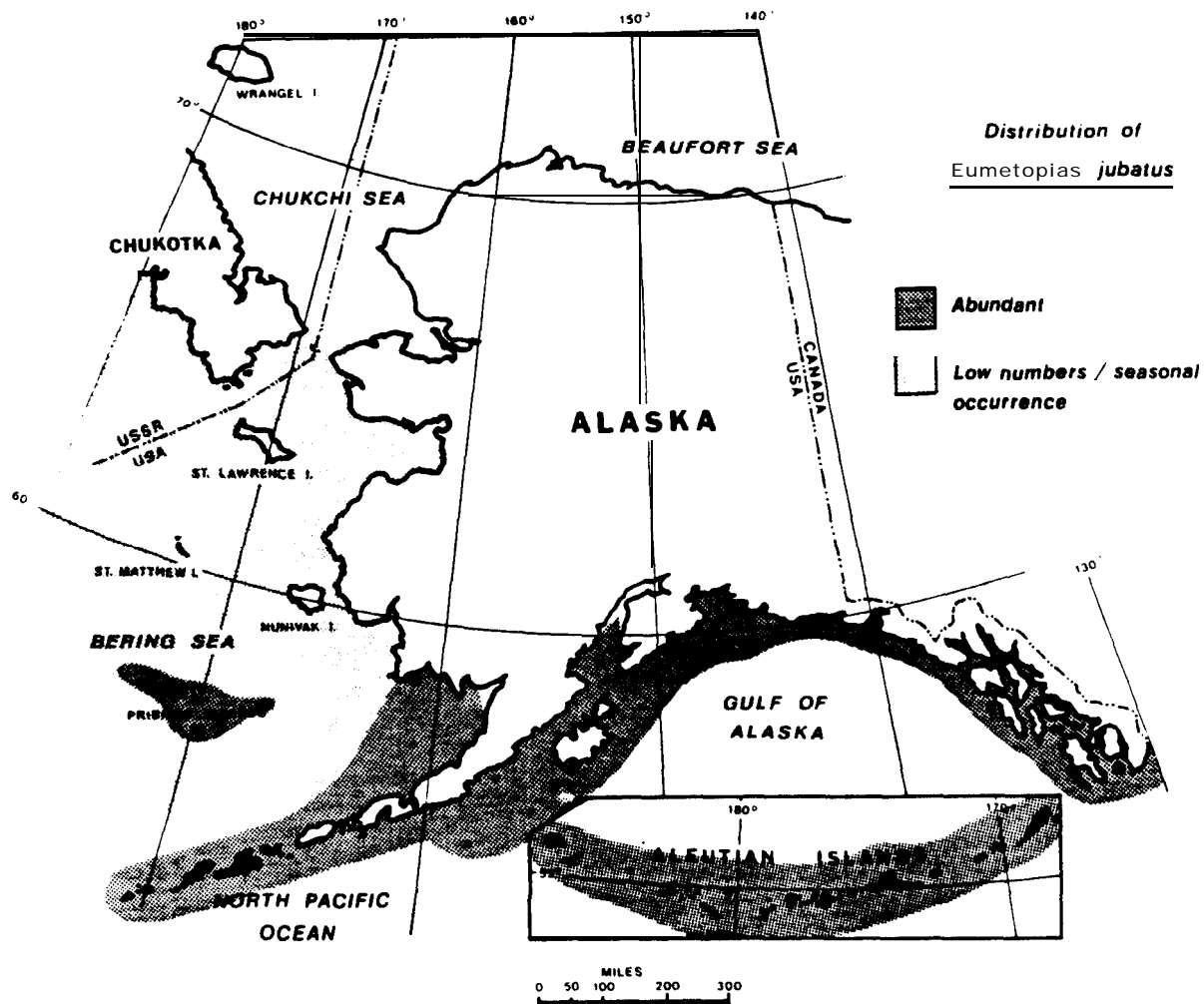


Fig. 2. General distribution of sea lion in Alaska. (Source: Burns, Frost, and Lowry 1985)

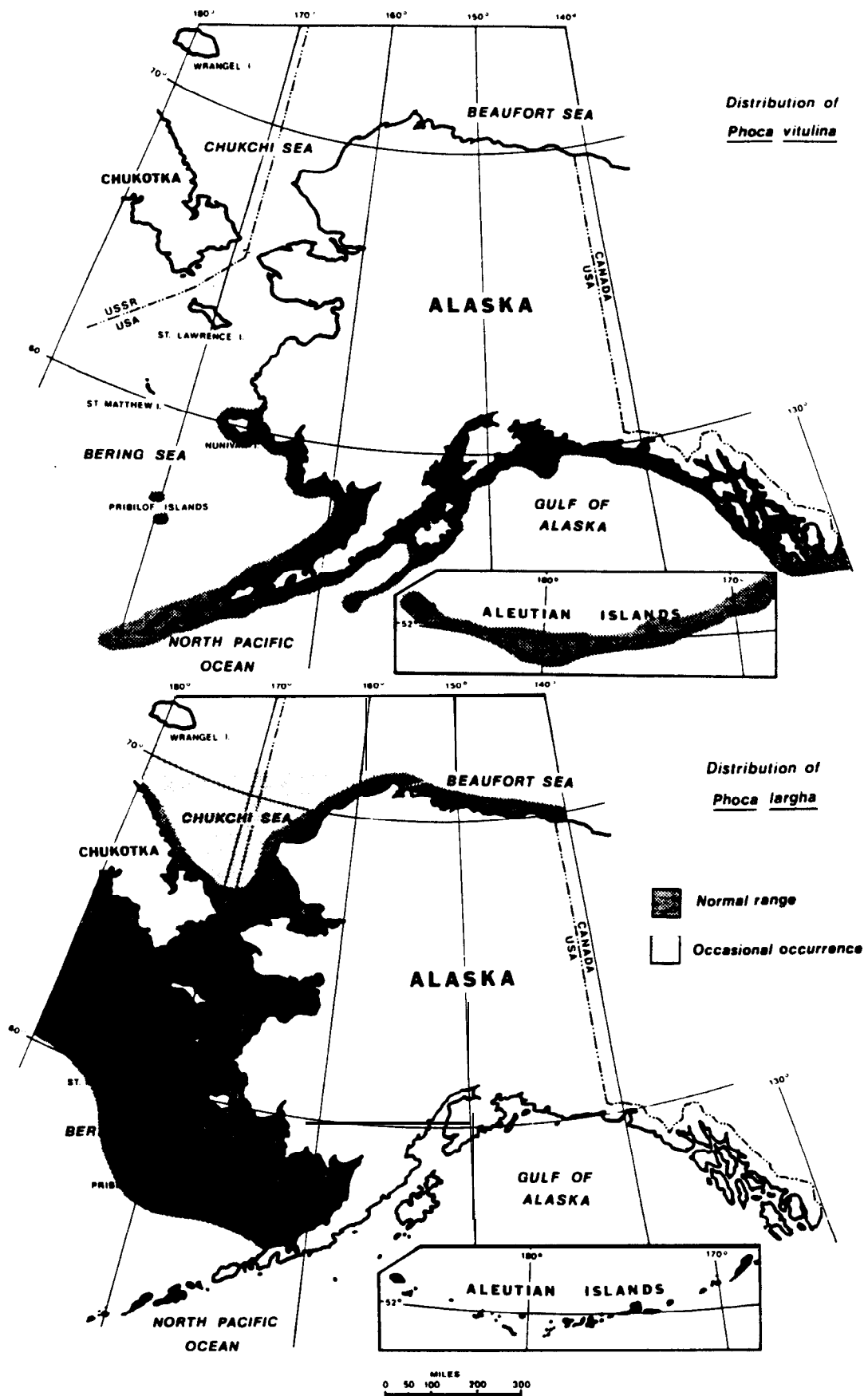


Fig. 3. [Top] General distribution of harbor seal (*Phoca vitulina*) in Alaska. [Bottom] General distribution of spotted seal (*Phoca largha*) in Alaska. (Source: Burns, Frost, and Lowry 1985)

Appendix A). Hunters and household heads were asked to recall the number of sea lions and harbor seals taken by household members during each month over the past year. The survey contained questions that pertained to harvest numbers, struck and lost animals, age of animals, and sex of animals. The survey also asked whether the household used, harvested, received, or gave away sea lion or harbor seal during the last year. Interviews were conducted by local researchers hired and trained as part of the project, augmented by regional Division of Subsistence researchers in select communities. Surveys were conducted in two rounds. The first survey was administered in May 1994 to cover the period from January through April 1994. The second survey was administered in January 1995 to cover the period from May through December 1994. The following section describes aspects of the study design.

Contacts with Native Governments, Other Associations, and Marine Mammal Hunters

During the first year of the study, a number of Native governments, Native leaders, and associations with interests in harbor seal and sea lion management were contacted to obtain support for the project. At onset, several statewide or regional organizations were contacted during project development -- the Alaska Federation of Natives; the Aleutians East Borough; Aleutian-Pribilof Islands Association; Bristol Bay Native Association; Central Council of Tlingit and Haida Indian Tribes of Alaska; Cook Inlet Region, Inc.; IPCOMM (meeting through RurAL CAP); Kodiak Area Native Association; and the North Pacific Rim (Chugachmiut). A variety of helpful suggestions were received from the statewide and regional organizations concerning procedures, contact persons in communities, and scheduling of the project.

The survey instrument and key respondent question list were reviewed by members of RurAL CAP and IPCOMM. Results from the first and second survey rounds were presented to IPCOMM. The Council passed a motion supporting the

project, including a proposal for the collection of tissue samples for scientific analysis from subsistence takes by Native hunters, should funding become available.

A standard procedure of Division of Subsistence research in communities with Alaska Native governments is to solicit approval of subsistence projects by local Native governments, or by leaders of local government entities (see Fall 1990). A project will not be conducted in a community if the project is not supported by local Native governments or their leaders. During the first project year, contacts were made with representatives of all the entities listed in Table 1. The project received support in the communities listed in Table 2. During the third project year, results from the previous study year were mailed to community leaders in all communities. Community leaders were consulted by phone about the continuation of the study in year three, and about the recruitment and hiring of local researchers. Feedback on the project the first two years was generally good, so the project was continued in 59 communities. Many local governments were extremely helpful during the course of the project, especially by identifying Native households, potential local researchers, and marine mammal experts in the community to contact. The support of local governments is gratefully acknowledged in the footnotes of the tables and figures in Appendix C.

Ultimately, the decision to participate in the project resided with each marine mammal hunter. Permission to administer the household harvest survey was asked of each individual respondent. This was done face-to-face at the person's home or during an initial phone contact. At this time, the purpose of the project was described. Marine mammal hunters and other respondents were informed that participation in interviews was completely voluntary. Respondents were told that their identities would be kept confidential in reports presenting the information. If a person declined to participate in the study, the person was thanked for his or her time and a survey was not conducted. Persons who were interviewed as part of the harvest survey were not paid. Most marine mammal hunters generously offered their assistance to the study.

TABLE 1.
ORGANIZATIONS CONTACTED DURING THE PROJECT

Community	Government/Organization Contacted
Akhiok	Akhiok Tribal Council City of Akhiok
Akutan	Akutan Traditional Village Council City of Akutan Akutan Corporation
Aleknagik	Aleknagik Tribal Council
Anchorage	Cook Inlet Tribal Council Alaska Federation of Natives
Angoon	city of Angoon
Atka	Atka IRA Council city of Atka
Chenega Bay	Chenega Bay IRA Council
Chignik Bay	Chignik Bay Traditional Village Council
Chignik Lagoon	Chignik Lagoon Traditional Village Council
Chignik Lake	Chignik Lake Traditional Village Council
Clark's Point	Clark's Point Traditional Council
Cordova	Traditional Village of Evak
Craig	Shaan-Seet, Inc. City of Craig
Dillingham	Dillingham Traditional Council
Egegik	Egegik Traditional Council
False Pass	False Pass Tribal Council City of False Pass
Haines	Chilkat Indian Association
Hoonah	Hoonah Traditional Council
Hydaburo	Haida Corporation City of Hydaburg
Iliamna	Iliamna Village Council
Ivanof Bay	Ivanof Bay Traditional Village Council
Juneau	Tlingit and Haida Central Council Sealaska Auke Tribe Council Alaska Native Brotherhood/Sisterhood
Kake	Organized Village of Kake City of Kake
Karluk	Karluk IRA Council
Kenai	Kenaitze Indian Tribe IRA Cook Inlet Region, Inc.
Ketchikan	Ketchikan IRA Council Ketchikan Indian Corporation
King Cove	Agdaagux Tribe of King Cove Belofsky Village Council City of King Cove
King Salmon	King Salmon Traditional Council
Klawock	Klawock Cooperative Association Klawock Heenya Corporation
Klukwan	Chilkat Indian Village
Kodiak City	Kodiak Tribal Council Kodiak Area Native Association
Larsen Bay	Larsen Bay Tribal Council City of Lemon Bay
Levelock	Levelock Traditional Council

Community	Government/Organization Contacted
Manokotak	Manokotak Traditional Council
Metlakatla	Council Annette Islands Reserve Metlakatla Indian Community
Naknek	Naknek Traditional Council
Nanwalak	Nanwalek Traditional Council English Bay Corporation
Nelson Lagoon	Nelson Lagoon Village Council
Nawhalan	Nawhalen Traditional Council
Nikolski	Nikolski IRA Council Chaluka Corporation
Old Harbor	Old Harbor Tribal Council City of Old Harbor
Ouzinkie	Ouzinkie Native Corporation Ouzinkie Tribal Council City of Ouzinkie
Paliwn	Tlingit and Haida Indians of Pelican Community Council City of Pelican
Perryville	Perryville Traditional Village Council
Petersburg	Petersburg Indian Association
Pilot Point	Pilot Point Traditional Council
Port Gmham	Port Gmham Village Council Port Graham Corporation
Port Heidan	Port Haidan Traditional Council
Port Lions	Port Lions Tribal Council City of Port Lions
Saint George	Saint George Traditional IRA Council Saint George Tanaq Corporation City of Saint George
Saint Paul	Tribal Government of Saint Paul City of Saint Paul
Sand Point	Unga Tribal Council Qagan Tayagugin Tribe of Sand Point City of Sand Point
Saxman	Saxman IRA Council City of Saxman
Seldovia	Seldovia Natii Association
Seward	Qutekcaq Netii Tribe
Sitka	Alaska Native Brotherhood Sitka Tribal Council
South Naknek	South Naknek Traditional Council
Tatiliak	Tatiliak IRA Council
Togiak	Togiak Traditional Council
Tyonek	Natii Village of Tyonek
Unalaska	Quawalangin Tribal Council
Valdu	Valdez Native Association
Wrangell	Wmngall Coopamtiie Association
Yakutat	Yakutat Alaska Native Brotherhood/Alaska Native Sisterhood Yakutat Natii Association Yak-Tat Kwaan

Local and Regional Researcher Network

A research network using local researchers and regional Division of Subsistence researchers was used to collect information on subsistence takes of sea lion and harbor seal during 1994. This type of research organization was developed by the Division of Subsistence during the first study year, and fully implemented the second study year. In each of the 59 communities selected for surveys, one or two local residents were selected, depending upon the size of the community, to perform the roles of a local researcher. The network of local researchers, under the supervision of and in collaboration with Division researchers in each region, conducted the household survey component of the project.

Newly hired local researchers received in-person training from regional researchers, whereas local researchers who successfully conducted surveys on previous rounds usually worked with regional researchers through telephone, fax, and the mail. Local researchers received instruction concerning the study's scientific and resource management contexts, project methodology, survey techniques, and findings from previous research periods. A process for updating each community's Native household lists and for selecting household samples was developed collaboratively by the regional and local researchers. Problems and issues identified during previous survey rounds were discussed and resolved during sessions.

Research tasks were appropriately divided between regional researchers and local researchers. Regional researchers performed tasks such as obtaining formal support for the project from Native organizations, recruiting and selecting local hires, developing household sampling regimes, training and supervising local researchers, proofing survey data, consulting local researchers to resolve data questions in preparation for data entry and analysis, writing reports on each community's survey experience, and entering fieldnotes into a centralized database. Local researchers performed tasks such as updating community lists of households and hunters,

TABLE 2
SAMPLING METHODOLOGY BY COMMUNITY,
HARBOR SEAL AND SEA LION SURVEYS, 1994

<u>Region and Community</u>	<u>1990 Native Population</u>	<u>Type of Desian</u>	<u>Identified Household Universe¹</u>	<u>Surveyed Households</u>	<u>Percentage Households Surveyed</u>
1. SOUTHEAST					
Angoon	525	Two Strata	130	75	57.7%
Craig	288	Chain Referral	23	21	91.3%
Haines	279	Chain Referral	24	22	91.7%
Hoonah	534	Two Strata	203	84	41.4%
Hydaburg	342	Chain Referral	14	14	100.0%
Juneau	3,462	Chain Referral	119	106	89.1%
Kake	514	Two Strata	181	92	50.8%
Ketchikan	1,614	Chain Referral	20	14	70.0%
Klawock	392	Chain Referral	33	26	78.8%
Klukwan	112	Chain Referral	10	a	80.0%
Pelican	65	Chain Referral	20	18	90.0%
Petersburg	334	Chain Referral	24	19	79.2%
Saxman	284	Chain Referral	19	15	78.9%
Sitka	1,797	Two Strata	608	91	15.0%
Wrangell	507	Chain Referral	7	7	100.0%
Yakutat	294	Census	124	92	74.2%
Region Total	11,343		1,559	704	45.2%
2. NORTH PACIFIC RIM					
Chenega Bay	65	Census	21	16	76.2%
Cordova	272	Two Strata	237	38	16.0%
Nanwalek	144	Census	36	31	86.1%
Port Graham	150	Census	62	60	96.8%
Seldovia	48	Two Strata	42	29	69.0%
Seward	410	Two Strata	156	32	20.5%
Tatitlek	103	Census	28	19	67.9%
Valdez	239	Chain Referral	6	6	100.0%
Region Total	1,431		588	231	39.3%
3. UPPER KENAI-COOK INLET					
Anchorage	14,569	Chain Referral	58	41	70.7%
Homer	189	Chain Referral	6	5	83.3%
Region Total	14,758		64	46	71.9%
4. KODIAK ISLAND					
Akhiok	72	Census	21	13	61.9%
Karluk	65	Census	14	13	92.9%
Kodiak City	811	Chain Referral	13	12	92.3%
Larsen Bay	124	Census	47	42	89.4%
Old Harbor	252	Two Strata	91	48	52.7%
Ouzinkie	178	Census	61	42	68.9%
Port Lions	150	Two Strata	55	42	76.4%
Region Total	1,652		302	212	70.2%

¹ For Chain Referral communitiis. the "Identified Household Universa" is smaller than the total number of Native households.

TABLE 2 CONTINUED
SAMPLING METHODOLOGY BY COMMUNITY,
HARBOR SEAL AND SEA LION SURVEYS, 1994

<u>Region and Community</u>	<u>1990 Native Population</u>	<u>Type of Desian</u>	<u>Identified Household Universe</u>	<u>Surveyed Households</u>	<u>Percentage Households Surveyed</u>
5. SOUTH ALASKA PENINSULA					
Chignik Bay	85	Census	27	24	88.9%
Chignik Lagoon	30	Census	20	20	100.0%
Chignik Lake	122	Census	39	30	76.9%
False Pass	52	Census	21	20	95.2%
Ivanof Bay	33	Census	8	6	75.0%
King Cove	177	Two Strata	118	43	36.4%
Perryville	102	Census	31	22	71.0%
Sand Point	433	Two Strata	143	42	29.4%
Region Total	1,034		407	207	50.9%
6. ALEUTIAN ISLANDS					
Akutan	80	Census	30	26	86.7%
Atka	91	Census	26	24	92.3%
Nikolski	29	Census	12	12	100.0%
Unalaska	259	Two Strata	104	68	65.4%
Region Total	459		172	130	75.6%
7. PRIBILOF ISLANDS					
St. George	131	Census	47	33	70.2%
St. Paul	504	Two Strata	159	73	45.9%
Region Total	635		206	106	51.5%
8. SOUTH BRISTOL BAY					
Egegik	88	Census	37	29	78.4%
King Salmon	108	Census	26	23	88.5%
Levelock	87	Census	35	20	57.1%
Naknek	236	Two Strata	92	46	50.0%
Pilot Point	45	Census	27	26	96.3%
Port Heiden	86	Census	34	27	79.4%
South Naknek	108	Census	32	29	90.6%
Region Total	756		283	200	70.7%
9. NORTH BRISTOL BAY					
Aleknagik	154	Census	38	23	60.5%
Clark's Point	53	Census	15	15	100.0%
Dillingham	1,125	Two Strata	456	59	12.9%
Manokotak	368	Two Strata	76	41	53.9%
Togiak	535	Two Strata	116	58	50.0%
Region Total	2,235		701	196	28.0%
TOTAL	34,303		4,282	2,032	47.5%
(Excl. Anchorage)	(19,734)		(4,224)	(1,991)	(47.1%)

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

TABLE 3
SAMPLING METHODOLOGY FOR COMMUNITIES
WITH TWO STRATA DESIGNS,
HARBOR SEAL AND SEA LION SURVEYS, 1994

<u>Community</u>	Number High Stratum <u>Households</u>	Sampled High Stratum <u>Households</u>	Percent High <u>Stratum</u>	Number Low Stratum <u>Households</u>	Sampled Low Stratum <u>Households</u>	Percent Low <u>Stratum</u>
Angoon	46	44	95.7%	84	31	36.9%
Cordova	13	10	76.9%	224	28	12.5%
Dillingham	29	29	100.0%	427	30	7.0%
Hoonah	59	51	88.4%	144	33	22.9%
Kake	76	62	81.6%	105	30	28.6%
King Cove	14	13	92.9%	164	30	28.8%
Manokotak	11	11	100.0%	65	30	46.2%
Naknek	19	16	84.2%	73	30	41.1%
Old Harbor	29	22	75.9%	62	26	41.9%
Port Lions	8	7	87.5%	47	35	74.5%
Sand Point	14	12	85.7%	129	30	23.3%
Seldovia	12	9	75.0%	30	20	66.7%
Seward	9	9	100.0%	147	23	15.6%
Sitka	68	61	89.7%	540	30	5.6%
St. Paul	57	39	68.4%	102	34	33.3%
Togiak	36	30	83.3%	80	28	35.0%
<u>Unalaska</u>	<u>23</u>	<u>22</u>	95.7%	<u>81</u>	<u>46</u>	<u>56.8%</u>
Total	523	447	85.5%	2444	514	21.0%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

implementing household sampling regimes, administering household surveys twice during the yearly cycle, data proofing of surveys and survey tracking forms, and mailing surveys and tracking sheets for data entry and analysis.

Household Sampling and Statistical Analysis

In the 59 surveyed communities, systematic interviews were conducted with potential marine mammal hunters living in 2,032 households (Table 2). The number of surveyed communities dropped from 60 places in 1993 to 59 places in 1994 because of the loss of Kenai as a sampling unit. The small number of Kenai seal hunters surveyed in previous years moved to other communities during the 1994 survey period, so no hunters were surveyed from Kenai in 1994. Households were selected using three main designs, depending upon the community – census sampling, two-strata random sampling, and chain referral sampling. The type of design used for each community is shown in Table 2. Sampling designs and expansion methods were similar to those used the first study year, as described in Wolfe and Mishler (1993: 17-19).

For communities with census or chain referral sampling, 81.4 percent of identified households (1,071 of 1,315 households) were successfully contacted and interviewed. For communities with two-strata designs, 85.5 percent of high stratum household were successfully contacted and interviewed (447 of 523 households), while a 21 percent random sample of low stratum households were interviewed (514 of 2,444 households) (Tables 2 and 3). These are high sampling fractions for studies using survey methodologies which rely upon voluntary participation by surveyed households. Overall, the level of cooperation by households in the harvest survey was high in all communities. The non-response rate was primarily due to logistical problems in contacting households, rather than refusals to participate.

As stated above, there were two survey rounds, covering the hunting periods of January 1994 through April 1994, and May 1994 through December 1994. In data

analysis, information collected during the second round was linked with the data set collected during the first round on a household basis, to complete the entire 1994 calendar year. Incomplete household data sets due to the household being missed during one of the survey rounds were treated as unsurveyed households and were given the mean of their respective sample groups.

In the appendices, the statistical analysis presents harvest data in three different tables for each community. In the first table, the unexpanded reported take is presented for each community. The table of unexpanded numbers represents actual animals reported killed by surveyed hunters, so there are no fractions of animals. The second table presents the combined estimated expanded take for each stratum in the community. In this table, takes of surveyed hunters are expanded to unsurveyed hunters within the stratum, using different methods depending upon the household sampling design as described above. In this expansion, the proportions of the seasonal takes of the surveyed households are preserved, so takes with unknown months exist in the table. The expansion treats each community as a separate sampling universe. Fractions of animals commonly result from the expansion, which are rounded to the nearest tenth. The third table presents a seasonally adjusted expanded take. In this table, the takes with unknown months are assigned to months based on the proportion of the known take. The numbers in this third table form the basis for the numbers in the report's narrative.

The calculation of the confidence range around the estimate is done for each community separately, as described in Wolfe and Mishler (1993:20-21). The confidence intervals were calculated according to the methods for stratified samples following Cochran (1977:5.13, 5.15). In this process, the unexpanded, reported take was used as the lower range for a community if it was higher than the statistically-calculated lower take estimate. This was done because the unexpanded take represents known (not hypothetical) kills.

THE SUBSISTENCE TAKE OF HARBOR SEAL IN 1994

Estimated Size of the Harbor Seal Take, 1994

The estimated size of the total take of harbor seals (*Phoca vitulina*) by Alaska Natives in 1994 is presented in Tables 4 and 5. In 1994, there were an estimated 2,621 harbor seals taken by Alaska Natives for subsistence uses (with a 95 percent confidence range of between 2,110 to 3,457 animals) (Table 4). Of the 1994 subsistence take, 11.8 percent (308 harbor seals) were struck and lost, and 88.2 percent (2,313 harbor seals) were harvested.

The total state estimate for harbor seals is necessarily somewhat indeterminate because of species identification problems in the Bristol Bay area. As discussed in Wolfe and Mishler (1993:61-69), in Bristol Bay there are areas with a seasonal geographic overlap of harbor seal (*Phoca vitulina*) and spotted seal (*Phoca largha*) (see Fig. 3). Local indigenous Yup'ik taxonomies categorize adults of the two Linnaean species as a single type (*issuriq*) in this area, and categorize pups into two different types. Of the total North Bristol Bay take, we classified 20 seals as *Phoca vitulina* and 270 as *Phoca largha*, based on ecological features of the kill (degree of association with seasonal ice) (Appendix B, Table 9). Of the animals classified as *Phoca largha*, 15.9 percent (43 animals) were reported struck and lost, and 84.0 percent (227 animals) were harvested (Appendix B, Table 9). In Table 4, we also assumed the entire South Bristol Bay take of 181 animals was *Phoca vitulina*. Changing these assumptions will change the total statewide take estimate up or down. As stated above, we believe the best estimate of the subsistence take in 1994 is 2,621 harbor seals, based on the assumptions above.

TABLE 4
ESTIMATED SUBSISTENCE TAKES OF
HARBOR SEAL (PHOCA VITULINA) AND
SEA LION (EUMETOPIAS JUBATUS)
BY ALASKA NATIVES, 1992 - 1994

	<u>Year</u>	<u>Estimated Total</u>		<u>Total Take</u>	<u>Lower and Upper Confidence Range for Total Take</u>
		<u>Harvest</u>	<u>Struck and Lost</u>		
Harbor Seal	1992	2,535 87.8%	353 12.2%	2,888 100.0%	2,320 - 3,741
	1993	2,365 88.4%	371 13.8%	2,736 100.0%	2,334 - 3,471
	1994	2,313 88.2%	308 11.8%	2,621 100.0%	2,110 - 3,457
Sea Lion	1992	370 67.4%	179 32.8%	549 100.0%	452 - 712
	1993	348 71.4%	139 28.6%	487 100.0%	390 - 629
	1994	336 80.8%	80 19.2%	416 100.0%	330 - 554

Source: Alaska Department of Fish and Game. Division of Subsistence, Household Surveys, 1995.

TABLE 5
REGIONAL DISTRIBUTION OF SUBSISTENCE TAKES OF
HARBOR SEAL (PHOCA VITULINA) BY ALASKA NATIVES. 1994

Region	Estimated Total		Take	Percentage of Take by Region	Per Capita Harvest	Struck and Lost Rate
	Harvest	struck and Lost				
Southeast	1348.5	151.4	1499.9	57.2%	0.11	10.1%
North Pacific Rim	411.2	56.8	468.0	17.9%	0.24	12.1%
Upper Kenai-Cook Inlet	16.2	0.0	16.2	0.6%	0.08	0.0%
Kodiak Island	168.2	3.6	171.7	6.6%	0.17	2.1%
South Alaska Peninsula	98.6	11.1	109.8	4.2%	0.07	10.1%
Aleutian Islands	124.9	22.6	147.5	5.6%	0.26	15.3%
Pribilof Islands	7.3	0.0	7.3	0.3%	0.01	0.0%
South Bristol Bay	121.6	59.3	180.9	6.9%	0.14	32.8%
North Bristol Bay	16.2	3.3	19.5	0.7%	0.01	16.9%
ALASKA	2312.8	308.0	2620.8	100.0%		11.8%
Percentage of Take	88.2%	11.8%	100.0%			

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

TABLE 6
SUBSISTENCE HARBOR SEAL HARVEST, TAKE, AND USE BY ALASKA NATIVES, 1994
WITH CONFIDENCE INTERVALS AND STATISTICAL RANGES, BY COMMUNITY

Community	Harbor Seal Harvested	Percent of Native Households Harvesting	Percent of Native Households Using	Harbor Seal Harvested	Harbor Seal Struck and Lost	Total Harbor seal Take	Total Take		
	Per Capita	HarborSeal	Harbor Seal	Harvested		Take	Confidence Interval (+/- %)	Lower Range Estimate	Upper Range Estimate
SOUTHEAST ALASKA									
Angoon	.13	12.9%	86.5%	66.9	21.1	88.0	14.8%	81.0	101.0
Craig	.15			42.7	6.6	49.3	15.2%	45.0	56.8
Haines	.14			39.3	2.2	41.5	18.6%	38.0	49.1
Hoonah	.45	20.8%	72.2%	240.7	15.0	255.8	19.1%	210.0	304.7
Hydaburg	.03		-	10.0	0.0	10.0	0.0%	10.0	10.0
Juneau	.02		-	78.6	13.5	92.1	24.4%	82.0	114.5
Kake	.19	15.6%	81.7%	99.3	7.4	106.6	33.4%	87.0	142.2
Ketchikan	.02			31.4	0.0	31.4	88.5%	22.0	59.2
Klawock	.18			71.1	0.0	71.1	39.4%	56.0	99.1
Klukwan	.03		-	3.8	1.3	5.0	66.3%	4.0	8.3
Pelican	.07		-	4.4	1.1	5.6	30.2%	5.0	7.2
Petersburg	.05		-	15.2	1.3	16.4	76.2%	13.0	28.9
Saxman	.06	26.7%	80.0%	16.5	0.0	16.5	57.2%	13.0	25.9
Sitka	.06	8.8%	90.9%	110.5	20.1	130.6	27.6%	102.0	166.6
Wrangell	.20		-	101.0	27.0	128.0	0.0%	128.0	128.0
Yakutat	1.42	30.2%	95.6%	417.1	35.0	452.1	26.1%	354.0	570.3
NORTH PACIFIC RIM									
Chenega Bay	.51	43.8%	75.0%	42.0	3.9	45.9	31.5%	35.0	60.4
Cordova	.21	6.1%	37.0%	135.8	9.1	144.9	54.0%	96.0	223.2
Nanwalek	.20	22.6%	71.0%	29.0	4.6	33.7	31.3%	29.0	44.2
Port Graham	.09	13.3%	81.7%	15.5	5.2	20.7	15.2%	20.0	23.8
Seldovia	.07	9.5%	47.6%	8.0	0.0	8.0	64.8%	6.0	13.2
Seward	.01	1.3%	16.8%	5.0	0.0	5.0	0.0%	5.0	5.0
Tatitlek	1.48	31.6%	94.7%	145.9	30.9	176.8	56.8%	120.0	277.4
Valdez	1.11			30.0	3.0	33.0	0.0%	33.0	33.0
UPPER KENAI-COOK INLET									
Anchorage				4.2	0.0	4.2	59.7%	3.0	6.8
Homer				12.0	0.0	12.0	70.4%	10.0	20.5
KODIAK ISLAND									
Akhiok	.19	38.5%	92.3%	14.5	0.0	14.5	50.0%	9.0	21.8
Karluk	.16	7.7%	30.8%	7.5	0.0	7.5	52.4%	7.0	11.5
Kodiak City	.15	25.0%	83.3%	7.6	0.0	7.6	38.8%	7.0	10.5
Larsen Bay	.10	21.4%	50.0%	13.4	2.2	15.7	20.3%	14.0	18.9
Old Harbor	.27	31.0%	100.0%	83.7	1.3	85.0	28.6%	60.7	109.3
Ouzinkie	.15	21.4%	40.5%	33.4	0.0	33.4	46.8%	23.0	49.0
Port Lions	.05	6.2%	18.1%	8.0	0.0	8.0	37.0%	7.0	11.0
SOUTH ALASKA PENINSULA									
Chignik Bay	.05	8.3%	8.3%	3.4	0.0	3.4	47.8%	3.0	5.0
Chignik Lagoon	.00	0.0%	5.0%	0.0	1.0	1.0	0.0%	1.0	1.0
Chignik Lake	.14	10.0%	76.7%	20.8	1.3	22.1	63.6%	17.0	36.2
False Pass	.19	25.0%	65.0%	12.6	2.1	14.7	22.6%	14.0	18.0
Ivanof Bay	.35	100.0%	100.0%	12.0	1.3	13.3	19.6%	10.7	15.9
King Cove	.05	9.3%	19.1%	20.9	1.1	22.0	53.0%	16.0	33.7
Perryville	.20	22.7%	86.4%	21.1	0.0	21.1	61.5%	15.0	34.1
Sand Point	.02	4.6%	13.9%	7.8	4.3	12.1	123.0%	5.0	27.0

TABLE 6. CONTINUED
SUBSISTENCE HARBOR SEAL HARVEST, TAKE, AND USE BY ALASKA NATIVES, 1994
WITH CONFIDENCE INTERVALS AND STATISTICAL RANGES, BY COMMUNITY

Community	Harbor Seal Harvested Per Capita	Percent of Native Households Harvesting Harbor Seal ¹	Percent of Native Households Using Harbor Seal ¹	Harbor Seal Harvested	Harbor Seal Struck and Lost	Total Harbor Seal Take	Total Take		
							Confidence Interval (+/- %)	Lower Range Estimate	Upper Range Estimate
ALEUTIAN ISLANDS									
Akutan	.17	11.5%	76.9%	13.8	3.5	17.3	46.8%	15.0	25.4
Atka	.88	62.5%	100.0%	73.7	8.7	82.3	12.9%	76.0	93.0
Nikolski	.33	50.0%	100.0%	6.0	0.0	6.0	0.0%	6.0	6.0
Unalaska	.10	10.1%	52.6%	31.4	10.5	41.8	15.2%	40.0	48.2
PRIBILOF ISLANDS									
St. George	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
St. Paul	.02	2.8%	2.8%	7.3	0.0	7.3	64.5%	5.0	12.0
SOUTH BRISTOL BAY									
Egegik	.12	17.2%	34.5%	12.8	0.0	12.8	39.9%	10.0	17.9
King Salmon	.20	21.7%	56.5%	17.0	4.5	21.5	34.2%	19.0	28.8
Levelock	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Naknek	.07	6.5%	51.2%	21.4	8.3	29.7	40.2%	24.0	41.7
Pilot Point	.04	3.8%	7.7%	3.1	0.0	3.1	37.7%	3.0	4.3
Port Heiden	.60	37.0%	88.9%	63.0	45.3	108.3	29.1%	86.0	139.8
South Naknek	.04	6.9%	27.6%	4.4	1.1	5.5	38.9%	5.0	7.7
NORTH BRISTOL BAY									
Aleknagik	.00	17.4%	78.3%	0.0	3.3	3.3	123.1%	2.0	7.4
Clark's Point	.00	13.3%	13.3%	0.0	0.0	0.0	0.0%	0.0	0.0
Dillingham	.01	8.4%	41.8%	16.2	0.0	16.2	165.7%	3.0	43.1
Manokotak	.00	13.8%	98.7%	0.0	0.0	0.0	0.0%	0.0	0.0
Togiak	.00	37.9%	60.7%	0.0	0.0	0.0	0.0%	0.0	0.0
ALASKA TOTAL				2312.8	308.0	2620.8	31.9%	2110.4	3457.4
SPOTTED SEALS, NORTH BRISTOL BAY									
Aleknagik	.16	17.4%	78.3%	21.5	0.0	21.5	64.0%	13.0	35.2
Clark's Point	.05	13.3%	13.3%	2.0	0.0	2.0	0.0%	2.0	2.0
Dillingham	.02	8.4%	41.8%	35.2	3.0	38.2	70.4%	25.0	65.1
Manokotak	.04	13.8%	98.7%	13.7	0.0	13.7	54.2%	9.0	21.1
Togiak	.28	37.9%	60.7%	154.2	39.9	194.1	27.5%	140.7	247.5
TOTAL WITH OTHER SEALS				2539.4	351.0	2890.3	32.5%	2300.1	3828.4

¹In North Bristol Bay, percentage of household harvesting and using *Issurik*, as was done in last year's report.

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

Geographic Distribution of Harbor Seal Takes

Table 5 shows the regional distribution of harbor seal takes by Alaska Natives in 1994. The largest takes in terms of absolute numbers were taken by the Tlingit and Haida of the Southeast region. About 57.2 percent of the statewide take of harbor seals (1,500 animals), were taken by hunters in Southeast Alaska (Table 5). The region ranked second was the North Pacific Rim (468 seals, or 17.9 percent of the statewide take). The remainder of the statewide harbor seal take (653 animals, or 24.9 percent) was distributed among the other 7 regions.

The geographic distribution of harbor seal takes by community is shown in Table 6 and Fig. 4. Of the top ten communities (in terms of absolute number of harbor seals taken in 1994), seven were in the Southeast region, two in the North Pacific Rim region, and one in the South Bristol Bay region. The ten top ranking communities were Yakutat (452 seals), Hoonah (256 seals), Tatitlek (177 seals), Cordova (145 seals), Sitka (131 seals), Wrangell (128 seals), Port Heiden (108 seals), Kake (107 seals), Juneau (92 seals), and Angoon (88 seals). There were five surveyed communities with no reported harbor seals taken in 1994 -- Clark's Point, Levelock, Manokotak, Saint George, and Togiak -- all near the extreme northern range of the species.

Per capita harvests are the number of harbor seals harvested per Alaska Native living in a community. It is an estimate of the amount harvested per person in an area, controlling for differences in population size. The top ten communities in terms of harvests per capita in 1994 were Tatitlek (1.48 harbor seals harvested per person), Yakutat (1.42), Valdez (1.11), Atka (0.88), Port Heiden (0.60), Chenega Bay (0.51), Hoonah (0.45), Ivanof Bay (0.35), Nikolski (0.33), and Old Harbor (0.27). There was greater parity across regions in per capita harvests compared with total community take (Table 6). Among the top ten communities for per capita harvests, three were in the North Pacific Rim region, two were in the Southeast region, two were in the Aleutian

Islands region, and one each was in the Kodiak Island, South Bristol Bay, and South Alaska Peninsula regions.

Seasonal Distribution of Harbor Seal Takes

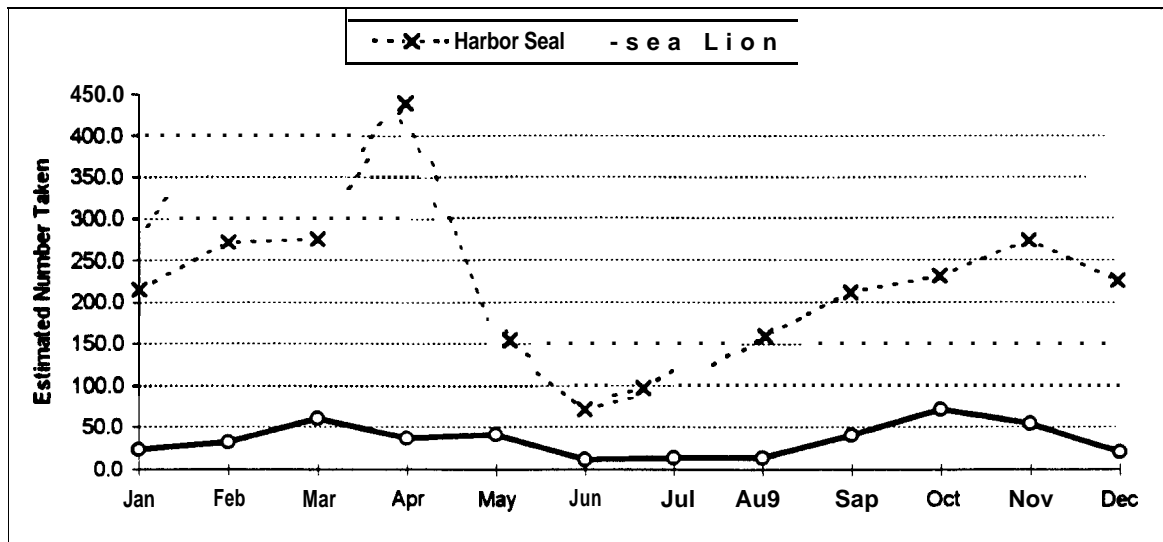
The seasonal distribution of the statewide harbor seal take in 1994 is depicted in Fig. 5. Harbor seals were reported killed during every month of 1994. Hunting was particularly productive early in the year, from January through April, with a large spike in take during April, followed by a drop in productivity during late spring and early summer (about May through July), with harvests rising again the latter half of the year from August to December, peaking in November (see also Fig. 9). The statewide total masks differences in seasonal patterns between regions and communities, which are depicted in Appendices B and C. Factors associated with seasonal patterns are discussed in Wolfe and Mishler (1993:32-33).

Age and Sex Distribution of Harbor Seal Harvests

The estimated age and sex distributions of the 1994 harbor seal harvests are shown in Tables 7 and 8 by geographic region. Hunters reported harvesting male harbor seals over female harbor seals by a ratio of about 2.0 to 1. Hunters also reported harvesting substantially more adult harbor seals than juveniles or pups (4.5 to 1). Overall, adult females comprised about 28 percent of the total known harvest of harbor seals in 1994. Hunters did not report the sex for 39 percent of the harvest or the age for about 10 percent of the harvest. The age and sex are also unknown for animals which were struck and lost.

Fig 5.

Seasonally Adjusted Takes of Harbor Seal and Sea Lion By Alaska Natives, 1994



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Harbor Seal	215.2	270.8	274.1	439.6	153.5	70.2	96.7	159.1	211.3	236.8	273.3	226.1
Percentage	8.2%	10.3%	10.5%	16.8%	5.9%	2.7%	3.7%	6.1%	6.1%	8.8%	10.4%	8.6%
Cum. Percent	8.2%	18.5%	29.0%	45.8%	51.6%	54.3%	58.0%	64.1%	72.1%	80.9%	91.4%	100%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sea Lion	23.1	31.9	59.8	36.6	40.9	11.2	13.4	13.9	40.7	70.6	53.9	20.1
Percentage	5.5%	7.7%	14.4%	8.8%	9.8%	2.7%	3.2%	3.3%	9.8%	17.0%	12.9%	4.8%
Cum. Percent	5.5%	13.2%	27.6%	36.4%	46.2%	46.9%	52.1%	55.5%	65.2%	82.2%	95.2%	100%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995

TABLE 7
AGE AND SEX DISTRIBUTION OF HARBOR SEAL HARVESTS
BY **ALASKA** NATIVES, 1994

	Male	Female	Unknown Sex	Total
Adult	783.5	395.2	533.1	1711.8
Row Percent	45.8%	23.1%	31.1%	100.0%
Column Percent	82.7%	85.1%	59.2%	74.0%
Juvenile	145.8	58.1	122.2	326.1
Row Percent	44.7%	17.8%	37.5%	100.0%
Column Percent	15.4%	12.6%	13.6%	14.1%
Pup	9.5	5.1	38.5	53.1
Row Percent	17.8%	9.7%	72.8%	100.0%
Column Percent	1.0%	1.1%	4.3%	2.3%
Unknown Age	8.8	5.9	207.1	221.8
Row Percent	4.0%	2.7%	93.4%	100.0%
Column Percent	0.9%	1.3%	23.0%	9.6%
Total	947.6	464.3	900.9	2312.8
Row Percent	41.0%	20.1%	39.0%	100.0%
Column Percent	100.0%	100.0%	100.0%	100.0%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

TABLE 8
AGE AND SEX DISTRIBUTION OF HARBOR SEAL HARVESTS
BY ALASKA NATIVES BY REGION, 1994

AGE AND SEX	southeast	North Pacific Rim	Upper Kenai- Cook Inlet	Kodiak Island	South Alaska Peninsul	Aleutian Islands	Pribilof Islands	South Bristol Bay	North Bristol Bay	Alaska
Adult Male	564.5	78.2	1.4	53.9	28.7	22.9	0.0	20.7	15.2	783.5
Adult Female	297.5	32.1	0.0	21.7	13.0	23.7	0.0	7.2	0.0	395.2
Adult Unknown Sex	330.9	72.7	13.6	21.3	24.1	18.1	0.0	51.4	1.0	533.1
Juvenile Male	54.8	29.4	0.0	24.4	8.3	20.5	7.3	1.1	0.0	145.8
Juvenile Female	21.2	7.6	0.0	18.1	2.6	8.7	0.0	0.0	0.0	58.1
Juvenile Unknown Sex	26.8	33.3	0.0	20.0	9.9	22.5	0.0	9.7	0.0	122.2
Pup Male	1.0	3.8	0.0	0.0	1.4	3.2	0.0	0.0	0.0	9.5
Pup Female	1.2	0.0	0.0	0.0	2.6	1.1	0.0	0.0	0.0	5.1
Pup Unknown Sex	4.9	18.9	0.0	1.1	0.0	3.3	0.0	10.3	0.0	38.5
Male Unknown Age	0.0	4.4	0.0	0.0	0.0	1.0	0.0	3.4	0.0	6.6
Female Unknown Age	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Unknown Age and Sex	45.7	125.0	1.2	7.5	9.9	0.0	0.0	17.9	0.0	207.1
TOTAL	1348.5	411.2	16.2	168.2	98.8	124.9	7.3	121.6	16.2	2312.6
AGE ONLY										
Adult	1192.9	182.9	15.0	97.0	63.8	64.6	0.0	79.2	16.2	1711.8
Juvenile	102.7	70.3	0.0	62.5	20.7	51.7	7.3	10.8	0.0	326.1
Pup	7.2	22.7	0.0	1.1	4.2	7.5	0.0	10.3	0.0	53.1
Unknown Age	45.7	135.3	1.2	7.5	9.9	1.0	0.0	21.3	0.0	221.8
TOTAL	1348.5	411.2	16.2	168.2	96.6	124.9	7.3	121.6	16.2	2312.8
SEX ONLY										
Male	620.3	115.8	1.4	78.3	36.4	47.6	7.3	25.2	15.2	947.6
Female	319.8	45.6	0.0	39.8	18.5	33.4	0.0	7.2	0.0	464.3
Unknown Sex	408.3	249.8	14.8	50.0	43.8	43.6	0.0	89.3	1.0	900.9
TOTAL	1348.5	411.2	16.2	166.2	98.6	124.9	7.3	121.6	16.2	2312.6

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995

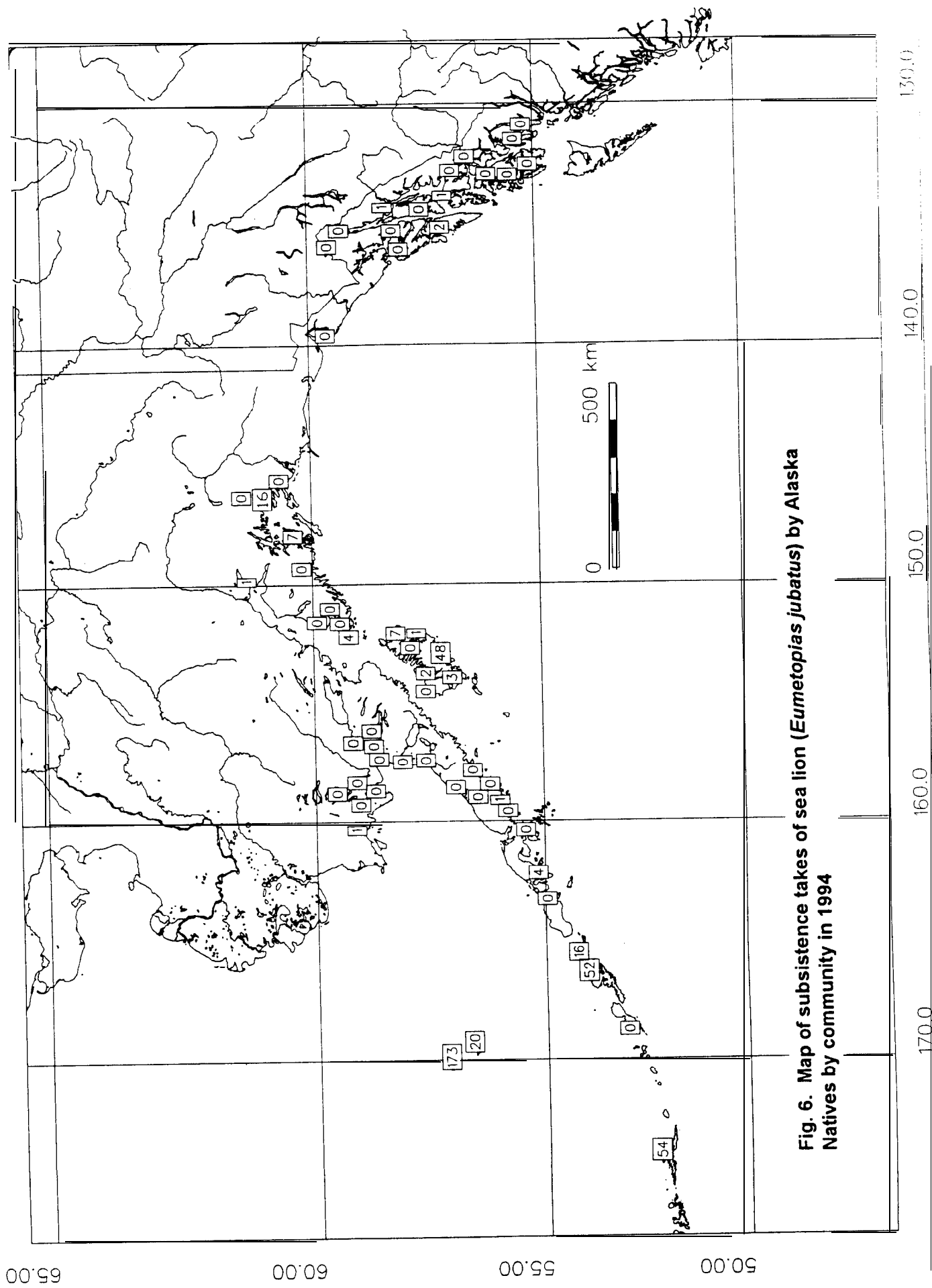


Fig. 6. Map of subsistence takes of sea lion (*Eumetopias jubatus*) by Alaska Natives by community in 1994

THE SUBSISTENCE TAKE OF SEA LION IN 1994

Estimated Size of the Sea Lion Take, 1994

The estimated size of the total take of Steller sea lions by Alaska Natives in 1994 is presented in Tables 4 and 9. In 1994, there were an estimated 416 sea lions taken by Alaska Natives for subsistence uses (with a 95 percent confidence range of between 330 to 554 animals) (Table 4). Of the 1994 subsistence take, 19.2 percent (80 sea lions) were struck and lost, and 80.8 percent (336 sea lions) were harvested.

Geographic Distribution of Sea Lion Takes

Table 9 shows the regional distribution of sea lion takes in 1994 by Alaska Natives. By far, the largest takes in terms of absolute numbers were taken by the Aleut hunters of the Aleutian Islands region and Pribilof Islands region, about 75.8 percent of the total statewide take of sea lions (316 animals) (Table 9). Other significant takes of sea lions were made by the Alutiiq of the Kodiak Island region (61 animals, or 14.7 percent of the statewide take) and the North Pacific Rim area (26 sea lions, or 6.3 percent of the statewide take). The remainder of the statewide take (12 animals, or 3.1 percent) was distributed among the other six regions.

The geographic distribution of sea lion takes by community is shown in Table 10 and Fig. 6. The five top ranking communities were Saint Paul (173 sea lions), Atka (54 sea lions), Unalaska (52 sea lions), Old Harbor (48 sea lions), and Tatitlek (16 sea lions). These five communities accounted for 82 percent of the total Alaska take (343 sea lions). In 1994, 39 of 59 surveyed communities reported no sea lions taken. Eleven more communities reported a take of less than five sea lions. Only nine communities had harvests of five or more sea lions in 1994.

In terms of per capita harvests, the Aleutian and Pribilof islands clearly stand out, with regional averages of somewhat less than one-quarter of a sea lion harvested

TABLE 9
REGIONAL DISTRIBUTION OF SUBSISTENCE TAKES OF
SEA LION (EUMETOPIAS JUBATUS) BY ALASKA NATIVES, 1994

Region	Estimated Total			Percentage of Take by Region	Per Capita Harvest	Struck and Lost Rate
	Harvest	Struck and Lost	Take			
Southeast	3.5	1.1	4.6	1.1%	0.00	24.4%
North Pacific Rim	16.6	9.7	26.3	6.3%	0.01	36.9%
Upper Kenai-Cook Inlet	1.4	0.0	1.4	0.3%	0.01	0.0%
Kodiak Island	57.1	4.2	61.3	14.7%	0.06	6.9%
South Alaska Peninsula	4.6	1.1	5.7	1.4%	0.00	18.8%
Aleutian Islands	101.8	20.5	122.3	29.4%	0.21	16.8%
Pribilof Islands	149.8	43.5	193.3	46.5%	0.23	22.5%
South Bristol Bay	0.0	0.0	0.0	0.0%	0.00	0.0%
North Bristol Bay	1.2	0.0	1.2	0.3%	0.00	0.0%
ALASKA	336.0	80.1	416.1	100.0%		19.2%
Percentage of Take	00.0%	19.2%	100.0%			

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

per person in 1994 (Table 9). None of the other regions are close to this. The top six communities in per capita harvests were Atka (0.55 sea lions harvested per person), Saint Paul (0.31), Akutan (0.16), Old Harbor (0.15), and Unalaska (0.14) (Table 10).

Seasonal Distribution of Sea Lion Takes

The seasonal distribution of the sea lion take in 1994 is depicted in Fig. 5. Sea lions were reported killed during every month of 1994. Seasonal peaks in subsistence productivity occurred during March and October, while summer (June, July, and August) was the period of lowest productivity. The statewide total masks differences in seasonal patterns between regions and communities, which are depicted in Appendices B and C.

Age and Sex Distribution of Sea Lion Harvests

The reported age and sex distributions of the 1994 sea lion harvests are shown in Tables 11 and 12 by geographic region. Hunters reported harvesting male sea lions over female sea lions by a ratio of about 4.2 to 1. Hunters also reported harvesting juvenile sea lions over adults and pups by about 2.1 to 1. Adult females comprised about 12 percent of the total known harvest of sea lions in 1994. Hunters did not report the sex for 12 percent of the harvest or the age for about 4 percent of the harvest. The age and sex also are unknown for sea lions which were struck and lost.

HUNTING PARTICIPATION

Hunting harbor seal or sea lion is a relatively specialized subsistence activity in Alaska communities. Based on survey findings, the estimated number of households which reported at least one member hunting harbor seal was 1,014 households in 1992, 854 households in 1993, and 971 households in 1994 (Table 13). The estimated

TABLE 10
SUBSISTENCE SEA LION HARVEST, TAKE, AND USE BY ALASKA NATIVES, 1994
WITH CONFIDENCE INTERVALS AND STATISTICAL RANGES, BY COMMUNITY

Community	Sea Lion Harvested Per Capita	Percent of	Percent of	Sea Lion Harvested	Sea Lion Struck and Lost	Total Sea Lion Take	Total Take		
		Native	Native				Confidence	Lower	Upper
		Households	Households				Interval	Range	Range
		Harvesting	Using				(+/- %)	Estimate	Estimate
	Sea Lion	Sea Lion	Sea Lion						
SOUTHEAST ALASKA									
Angoon	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Craig	.00	-	-	0.0	0.0	0.0	0.0%	0.0	0.0
Haines	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Hoonah	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Hydaburg	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Juneau	.00		-	1.1	0.0	1.1	64.8%	1.0	1.8
Kake	.00	0.7%	2.6%	1.2	0.0	1.2	84.1%	1.0	2.3
Ketchikan	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Klawock	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Klukwan	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Pelican	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Petersburg	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Saxman	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Sitka	.00	0.2%	3.5%	1.1	1.1	2.2	44.1%	2.0	3.2
Wrangell	.00			0.0	0.0	0.0	0.0%	0.0	0.0
Yakutat	.00	0.0%	1.1%	0.0	0.0	0.0	0.0%	0.0	0.0
NORTH PACIFIC RIM									
Chenega Bay	.08	25.0%	62.5%	6.6	0.0	6.6	46.1%	5.0	9.6
Cordova	.00	0.0%	3.9%	0.0	0.0	0.0	0.0%	0.0	0.0
Nanwalek	.01	3.2%	45.2%	1.2	2.3	3.5	73.0%	3.0	6.0
Port Graham	.00	0.0%	31.7%	0.0	0.0	0.0	0.0%	0.0	0.0
Seldovia	.00	0.0%	14.3%	0.0	0.0	0.0	0.0%	0.0	0.0
Seward	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Tatitlek	.09	5.3%	47.4%	8.8	7.4	16.2	111.1%	11.0	34.2
Valdez	.00			0.0	0.0	0.0	0.0%	0.0	0.0
UPPER KENAI-COOK INLET									
Anchorage				1.4	0.0	1.4	106.1%	1.0	2.9
Homer				0.0	0.0	0.0	0.0%	0.0	0.0
KODIAK ISLAND									
Akhiok				3.2	0.0	3.2	81.9%	2.0	5.9
Karluk	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Kodiak City	.02	8.3%	8.3%	1.1	0.0	1.1	54.4%	1.0	1.7
Larsen Bay	.02	2.4%	2.4%	2.2	0.0	2.2	63.9%	2.0	3.7
Old Harbor	.15	28.1%	100.0%	46.2	1.3	47.5	26.3%	35.0	60.0
Ouzinkie	.02	4.8%	11.9%	4.4	2.9	7.3	78.0%	5.0	12.9
Port Lions	.00	0.0%	2.1%	0.0	0.0	0.0	0.0%	0.0	0.0
SOUTH ALASKA PENINSULA									
Chignik Bay	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Chignik Lagoon	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Chignik Lake	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
False Pass	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Ivanof Bay	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
King Cove	.01	2.7%	2.7%	3.2	1.1	4.3	29.8%	4.0	5.6
Perryville	.01	4.5%	22.7%	1.4	0.0	1.4	105.6%	1.0	2.9
Sand Point	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0

TABLE 10, CONTINUED
SUBSISTENCE SEA LION HARVEST, TAKE, AND USE BY ALASKA NATIVES, 1994
WITH CONFIDENCE INTERVALS AND STATISTICAL RANGES, BY COMMUNITY

Community	Sea Lion Harvested Per Capita	Percent of Native	Percent of Native	Sea Lion Harvested	Sea Lion Struck and Lost	Total Sea Lion Take	Total Take		
		Households	Households				Interval (+/- %)	Range Estimate	Range Estimate
		Households Harvesting Sea Lion	Using Sea Lion						
ALEUTIAN ISLANDS									
Akutan	.16	15.4%	73.1%	12.7	3.5	16.2	42.5%	14.0	23.0
Atka	.55	37.5%	100.0%	45.5	8.7	54.2	20.8%	50.0	65.4
Nikolski	.00	0.0%	91.7%	0.0	0.0	0.0	0.0%	0.0	0.0
Unalaska	.14	13.8%	53.7%	43.6	8.4	51.9	14.6%	49.0	59.5
PRIBILOF ISLANDS									
St. George	.02	6.1%	42.4%	2.8	17.1	19.9	59.1%	14.0	31.7
St. Paul	.31	25.9%	64.3%	147.0	26.4	173.4	26.4%	127.6	219.2
SOUTH BRISTOL BAY									
Egegik	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
King Salmon	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Levelock	.00	0.0%	5.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Naknek	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Pilot Point	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Port Heiden	.00	0.0%	3.7%	0.0	0.0	0.0	0.0%	0.0	0.0
South Naknek	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
NORTH BRISTOL BAY									
Aleknagik	.00	0.0%	8.7%	0.0	0.0	0.0	0.0%	0.0	0.0
Clark's Point	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Dillingham	.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Manokotak	.00	0.0%	67.3%	0.0	0.0	0.0	0.0%	0.0	0.0
Togiak	.00	1.0%	1.0%	1.2	0.0	1.2	80.0%	1.0	2.2
ALASKA TOTAL				336.0	80.1	416.1	33.1%	329.6	553.7

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

TABLE 11
AGE AND SEX DISTRIBUTION OF SEA LION HARVESTS
BY ALASKA NATIVES, 1994

	Male	Female	Unknown Sex	Total
Adult	48.4	35.0	17.4	100.8
Row Percent	48.1%	34.7%	17.3%	100.0%
Column Percent	20.3%	61.5%	43.0%	30.0%
Juvenile	186.3	21.9	11.0	219.2
Row Percent	85.0%	10.0%	5.0%	100.0%
Column Percent	78.0%	38.5%	27.3%	65.2%
Pup	4.0	0.0	0.0	4.0
Row Percent	100.0%	0.0%	0.0%	100.0%
Column Percent	1.7%	0.0%	0.0%	1.2%
Unknown Age	0.0	0.0	12.0	12.0
Row Percent	0.0%	0.0%	100.0%	100.0%
Column Percent	0.0%	0.0%	29.7%	3.6%
Total	238.7	56.8	40.5	336.0
Row Percent	71.0%	16.9%	12.0%	100.0%
Column Percent	100.0%	100.0%	100.0%	100.0%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995

TABLE 12
AGE AND SEX DISTRIBUTION OF SEA LION HARVESTS
BY ALASKA NATIVES BY REGION, 1994

AGE AND SEX	Southeast	North Pacific	Upper Kenai- Cook Inlet	Kodiak Island	South Alaska Peninsula	Aleutian Islands	Pribilof Islands	South Bristol Bay	North Bristol Bay	Alaska
Adult Male	2.3	2.6	1.4	12.0	2.5	20.3	7.3	0.0	0.0	46.4
Adult Female	0.0	0.0	0.0	9.0	2.2	23.8	0.0	0.0	0.0	35.0
Adult Unknown Sex	0.0	0.0	0.0	6.4	0.0	9.6	1.4	0.0	0.0	17.4
Juvenile Male	1.1	2.6	0.0	15.4	0.0	32.2	133.7	0.0	1.2	166.3
Juvenile Female	0.0	1.3	0.0	9.0	0.0	6.6	3.0	0.0	0.0	21.9
Juvenile Unknown Sex	0.0	1.2	0.0	4.2	0.0	4.2	1.5	0.0	0.0	11.0
Pup Male	0.0	0.0	0.0	0.0	0.0	1.0	2.9	0.0	0.0	4.0
Pup Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pup Unknown Sex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Male Unknown Age	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female Unknown Age	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown Age and Sex	0.0	6.6	0.0	1.1	0.0	2.1	0.0	0.0	0.0	12.0
TOTAL	3.5	16.6	1.4	57.1	4.6	101.6	149.6	0.0	1.2	336.0

AGE ONLY										
Adult	2.3	2.6	1.4	27.4	4.6	53.7	6.7	0.0	0.0	100.8
Juvenile	1.1	5.1	0.0	26.6	0.0	44.9	136.2	0.0	1.2	219.2
Pup	0.0	0.0	0.0	0.0	0.0	1.0	2.9	0.0	0.0	4.0
Unknown Age	0.0	6.6	0.0	1.1	0.0	2.1	0.0	0.0	0.0	12.0
TOTAL	3.5	16.6	1.4	57.1	4.6	101.6	149.6	0.0	1.2	336.0

SEX ONLY										
Male	3.5	5.3	1.4	27.5	2.5	53.5	144.0	0.0	1.2	236.7
Female	0.0	1.3	0.0	16.0	2.2	32.4	3.0	0.0	0.0	56.6
Unknown Sex	0.0	10.0	0.0	11.7	0.0	15.9	2.9	0.0	0.0	40.5
TOTAL	3.5	16.6	1.4	57.1	4.6	101.6	149.6	0.0	1.2	336.0

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

number of households which reported at least one member hunting sea lions was 199 households in 1992, 222 households in 1993, and 210 households in 1994. For the three survey years, the large majority of Native households in the study's sampling universe did not attempt to hunt harbor seals or sea lions (Table 13). There also was substantial specialization in hunter productivity among the households that did hunt in 1994 (see Figs. 7 and 8). A relatively small number of highly-productive hunters reported taking most of the subsistence kills. Specialization has implications for co-management systems. The largest management effects in any region are potentially reached through this group of highly productive subsistence hunters.

The percent of hunting households that reported hunting unsuccessfully in 1994 was the highest of the three survey years – 37 percent hunted unsuccessfully for harbor seal (compared with 29 percent in 1992 and 25 percent in 1993), and 40 percent hunted unsuccessfully for sea lion (compared with 30 percent in 1992 and 35 percent in 1993). The percent of unsuccessful hunters may be used as one index of hunting efficiency. The increase in the percent of unsuccessful hunters from 1992 to 1994 may reflect increased problems for marine mammal hunters in accessing harbor seals and sea lions in the community's hunting areas, perhaps due to population levels.

There appears to be moderate turnover in hunting households across years, as shown by the unweighted composition of the hunters surveyed all three survey years in Table 14. For harbor seal, there were 210 households that hunted all three years, 188 households that hunted in two of the three survey years, 239 that hunted in one of the three years, and 446 households that did not hunt in any year. For sea lion, there were 34 households that hunted all three years, 37 households that hunted in two of the three survey years, 80 that hunted in one of the three years, and 932 households that did not hunt in any year. Hunter participation is shown separately for St. Paul, where two years' data are available (Table 14).

TABLE 13
PARTICIPATION RATES OF
ALASKA NATIVE HOUSEHOLDS IN
HUNTING HARBOR SEAL OR SEA LION, 1992, 1993, AND 1994

	HARBOR SEAL			SEA LION		
	Household Universe	Percentage of Household Universe	Percentage of Hunting Households	Household Universe	Percentage of Household Universe	Percentage of Hunting Households
STUDY YEAR 1992						
Did Not Hunt	2698	73%	--	3513	95%	--
Hunted Unsuccessfully	290	8%	29%	59	2%	30%
Hunted Successfully	724	19%	71%	140	4%	70%
Total Households	3712	100%	--	3712	100%	--
Total Hunting Households	1014	27%	100%	199	5%	100%
STUDY YEAR 1993						
Did Not Hunt	3510	80%	--	4142	95%	--
Hunted Unsuccessfully	216	5%	25%	78	2%	35%
Hunted Successfully	638	15%	75%	144	3%	65%
Total Households	4364	100%	--	4364	100%	--
Total Hunting Households	854	20%	100%	222	5%	100%
STUDY YEAR 1994						
Did Not Hunt	3311	77%	--	4072	95%	--
Hunted Unsuccessfully	362	8%	37%	85	2%	40%
Hunted Successfully	608	14%	63%	125	3%	60%
Total Households	4282	100%	--	4282	100%	--
Total Hunting Households	971	23%	100%	210	5%	100%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995

Fig 7.
**Specialization in Harbor Seal Takes:
 Percentage of Hunters by Percentage of Take, 1994**

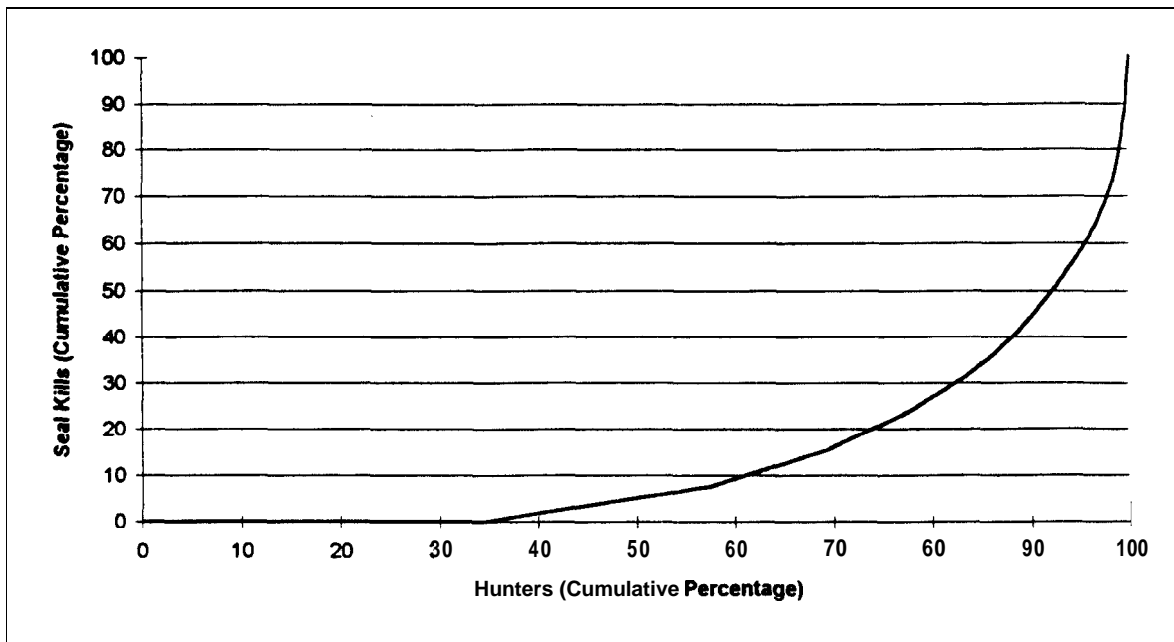
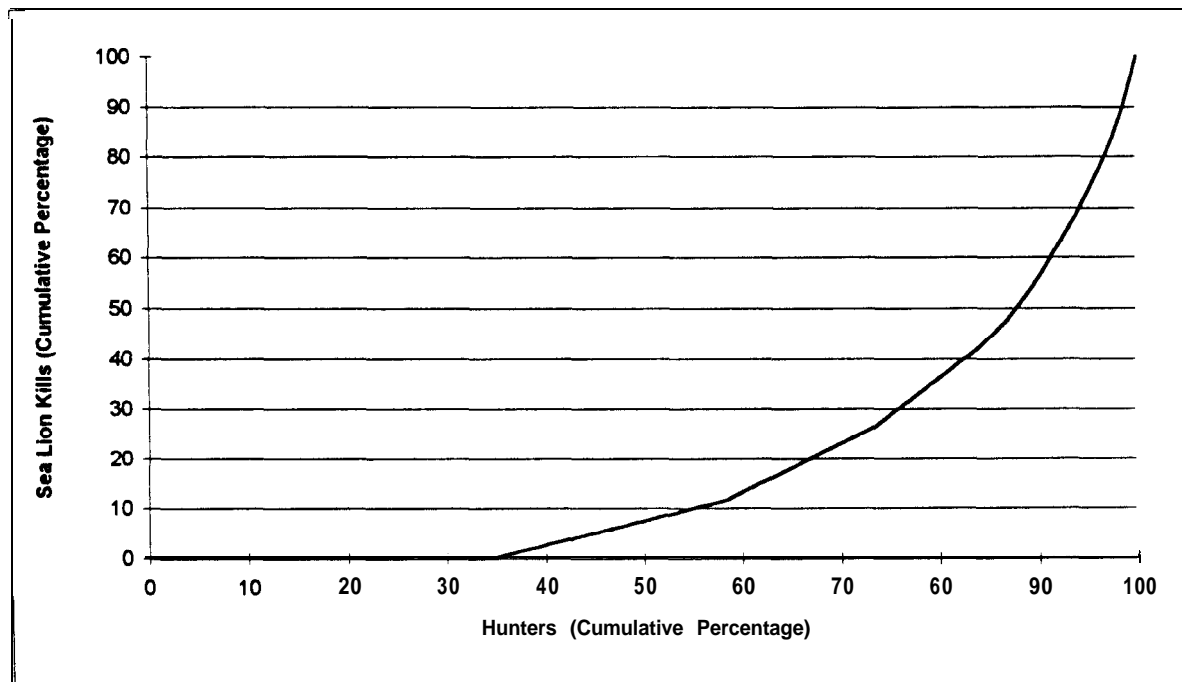


Fig 8.
**Specialization in Sea Lion Takes:
 Percentage of Hunters by Percentage of Take, 1994**



Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

SEA LION HUNTING METHODS IN THE ALEUTIAN AND PRIBILOF ISLANDS

Earlier reports have described contemporary hunting methods for harbor seal by the Tlingit of Southeast Alaska (Wolfe et al. 1994) and for sea lion by the Alutiiq of Kodiak Island (Haynes and Mishler 1991:21-23). This section describes contemporary sea lion hunting methods by the Aleut of the Pribilof and Aleutian islands, based on key respondent interviews conducted in all of the Aleutian and Pribilof Island communities as part of this current study. General descriptions of sea lion hunting have been previously presented for the Pribilof Islands (Veltre and Veltre 1981a), Unalaska (Veltre and Veltre 1981 b), and Atka (Veltre and Veltre 1983). This section provides additional ethnographic information about the unique practices in the Aleutian-Pribilof region, particularly the shore-based hunting methods practiced along the rugged shorelines of the Pribilof Islands. The section describes hunting patterns by community, including St. Paul, St. George, Unalaska, Atka, Akutan, and Nikolski.

Sea Lion Hunting at St. Paul

On St. Paul Island, much of the hunting for sea lion (*qawaŋ*) is done at Northeast Point, located at the extreme opposite end of the island from the community of St. Paul. Hunters today generally drive their trucks to the point, where they park and post themselves at lookout stations. Access to sea lions is not easy. Because of high winds and drifting snow, four wheel drive trucks are generally necessary. The wind at Northeast Point is usually blowing onshore, carrying with it a great deal of salt spray. There is an abundance of surf and a considerable amount of loud pounding on the beach.

In addition to Northeast Point, other areas on St. Paul Island used for hunting sea lions are Reef Point, Sea Lion Neck, outer Gorbach Bay, and on the opposite side of the peninsula from Gorbach Bay. A sixth place is Sea Lion Rock, but this place is

TABLE 14
COMPARISON OF HOUSEHOLDS
INTERVIEWED IN 1992, 1993, AND 1994
(UNWEIGHTED NUMBERS)

HARBOR SEAL

COMMUNITIES WITH THREE YEARS OF DATA

1083 Households interviewed in **1992, 1993**, and 1994
 446 Households did not hunt in any year
 239 Households hunted in 1 of the 3 years
 188 Households hunted in 2 of the 3 years
 210 Households hunted in 3 of the 3 years

ST. PAUL (2 YEARS OF DATA)

49 Households interviewed in 1992 and 1994
 46 Households did not hunt either year
 1 Households hunted in **1** of the 2 years
 2 Households hunted in 2 of the **2 years**

SEA LION

COMMUNITIES WITH THREE YEARS OF DATA

1083 Households interviewed in **1992, 1993**, and 1994
 932 Households did not hunt in any year
 80 Households hunted in **1** of the 3 years
 37 Households hunted in 2 of the 3 years
 34 Households hunted in 3 of the 3 years

ST. PAUL (2 YEARS OF DATA)

49 Households interviewed in 1992 and 1994
 17 Households did not hunt either year
 14 Households hunted in **1** of the 2 years
 18 Households hunted in 2 of the 2 years

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

largely inaccessible due to great offshore rocks that are usually only half submerged. Only in calm weather at very high tides do hunters venture there in skiffs.

Sea lion hunting on St. Paul Island generally begins in September and ends in May. In February and March the ice pack moves down from the Bering Sea, usually bringing more marine mammals. One man says that hunting gets easier near the end of April when more animals start riding together, often 10 to 15 at a time. Most hunting takes place on weekends, to avoid conflict with jobs hunters may hold during the week. The best time to see sea lions is early in the morning and then again late in the evening. During the middle of the day they seem to feed somewhere farther offshore.

One hunter described shore-based hunting methods used at Northeast Point. "We hunt with the current and the wind. We do not hunt sea lions when the wind is offshore, blowing out. You have to face the wind in order to hunt because if you kill a big sea lion and it sinks, you watch the current, and then about an hour or so later it will come ashore and you pick it up. And if you don't find it, you tell the other hunters, and then the other hunters keep an eye out for it, and they will grab it or call you on the radio and let you know your sea lion is on the beach."

Hunters stand patiently for hours, scanning the water for the heads of male sea lions as they are swimming or "riding" the waves. Some hunters use binoculars if conditions are dry enough, but others disdain this device. The sea lions commonly swim parallel to the shore of St. Paul Island, going from east to west and then south, or from south to north along the east side of the island. On the north and west sides of the island the sea lions remain too far offshore to hunt. When they are traveling west from Walrus Island and south to Otter Island they cannot be hunted once they pass Northeast Point. Because of this pattern of movement, most of the hunting is done at Northeast Point and on the south and east sides of the island, where sea lions have an established swimway that is within rifle range.

Hunters do not shoot every animal they see. Careful hunters in particular are highly selective. Sea lion hunters report they are reluctant to shoot females of any size, and they try to avoid large males, the latter being called "garbage can heads." In the words of one man, "We hunt the male sea lions only. We don't go after the females. We tell them apart by the shape of the head. The female has got a smoother shaped head and narrow. The male would look more like a bulldog-shaped head, and a little more hair to it. Medium-sized ones are what we like." The harvest reports of hunters for 1992 and 1994 provide support for selective hunting at St. Paul for age and sex characteristics. Based on the hunter survey, 90 percent of the sea lions harvested at St. Paul in 1994 were juvenile males, 5 percent were adult males, 2 percent were juvenile females, 2 percent were male pups, and 1 percent were juveniles of unknown sex (Table 47). In 1992, 63 percent were juvenile males, 21 percent were juveniles of unknown sex, 6 percent were adult males, 7 percent were male pups, 3 percent were pups of unknown sex, and 1 percent were juvenile females. Age and sex data are unavailable for the 1993 harvest year.

According to one hunter, female sea lions (*qawam ayagaa*) are not taken on St. Paul because of a strong conservation ethic. From the time when boys begin to hunt they are cautioned against taking females of any species, especially pregnant females. There is a strong belief that it is necessary to preserve females for reproduction. When females are shot by hunters, it is usually by accident.

When a juvenile male or yearling (*qawaadaḵ*) comes along, hunters aim and take a shot, hoping to hit the sea lion at the time when its head pokes above water for a gulp of air. An animal which has its lungs full of air is much more likely to float after it has been shot than one that has emptied its lungs by exhaling.

Some St. Paul hunters like to call sea lions, imitating their barking and growling. "We call sea lions with a growl. And then the sea lion starts looking, and then you keep doing that until the sea lion gets close into the beach. That's the way you bring it in.

That all depends on how strong the wind is blowing too. You stand on the bluff and kind of move around like you're a sea lion. At times when they get close to the beach then you have to hide. If we're on a bluff we don't mind, but if you're in the rocks, then you have to hide, kind of sneak up to them."

After the animal has been shot, hunters must again be patient. Because the heavy seas preclude the use of a skiff, they cannot easily retrieve their kill. They must wait for the wind and tidal currents to bring the carcass to shore. Depending on the location of the kill, the sea lion may wash up within a few hours, or it may not show up for a day or two. Being a good shot does not in itself make a good hunter. An experienced hunter reads the wind and water to correctly predict when and where his kill will wash up. If it is high tide the animal will drift north; if it is low tide it will drift south. However, even for the most experienced hunter, due to the vagaries of winds and tides, not every animal is retrieved. Sometimes the sea lions get caught in the rocks or sink into kelp beds and are only found after a big storm breaks them free. Struck and lost rates for sea lion at St. Paul were 29 percent in 1992 and 15 percent in 1994 (Table 47); the first is within the middle range for communities hunting sea lions, while the latter is on the low end of the range for struck and lost sea lions.

If the hunter is lucky, the sea lion will soon float within range of his *qayu*̂, or "sea dog". The *qayu*̂ is a retrieval device comprising a short piece of wood and hooks. In one design, the wood piece is formed from the stubby end of a baseball bat to which four large halibut hooks are lashed. The *qayu*̂ is attached to a piece of heavy coiled line about 30-40 feet long. When tossed accurately, the *qayu*̂ will snag the floating sea lion and enable the hunter to pull it quickly ashore.

Throwing the *qayu*̂ effectively takes a considerable amount of practice. If the sea lion is only a few yards offshore, a hunter can hold the *qayu*̂ in the palm of his hand and toss it underhanded, playing out the coiled line. This method limits the distance the *qayu*̂ can be thrown but improves accuracy. For more distant retrievals,

hunters whip the *qayuĥ* on the end of a two or three foot piece of line. If they are right handed, they will hold the coiled line with the left hand and whip the short end with the right hand. The whipping action can be done vertically in a clockwise direction, or horizontally in a clockwise direction. When the *qayuĥ* reaches its maximum velocity, it is released with the right hand and then with the left hand, so that the coiled line will play out. It is not uncommon for the *qayuĥ* to sail out 30 or 40 feet when this whipping motion is used. The *qayuĥ* is also useful for retrieving harbor seals and ducks.

Not every sea lion floats, however, and it may happen that some other hunter will find the sea lion after it washes up the next day. The meat is considered to be edible for up to three days after the animal has been shot, due to the cold water conditions around St. Paul. Any hunter attempting to salvage a dead sea lion from a previous day will examine the animal's eyes to determine whether it is still edible.

The sharing of sea lion meat after the kill is an important part of the community ethic. Hunters enjoy each other's company on the lookout areas and share the kill among the group that happens to be assembled the particular day. "We'll meet at Northeast Point in a group. You go out by yourself, and then before you know it, here comes one of your buddies. Then we're sitting there talking away until we see a sea lion. So before the day ends there will be four or five of us out there hunting sea lion, and then we share what we shoot."

It is customary that anyone can salvage a dead sea lion that washes up, but the person doing the salvaging usually shares the meat with the person who shot it, if it can be traced. Whoever retrieves an animal tends to keep the sea lion liver, the heart, the flippers, and some shoulder steaks. They are most likely to give away the backstrap and the breast meat to elders. The skin, tailbone, and head are discarded back into the sea, but the vertebrae are often used for soup. Some hunters will salvage the teeth since there are three or four ivory carvers in the village, and they sometimes use the sea lion's and fur seal's teeth for making jewelry. One man says, "We talk to each

other on the VHF, and when you're coming in, a party that's coming in might let you know that it's got extra sea lion on the truck, and if you need it, meet them someplace, or they go by the house and drop it off. We do a lot of our communication by radio."

Sea Lion Hunting at St. George

Shore-based hunting methods on St. George Island are similar to those described for St. Paul in the previous section. However, on St. George Island, hunting is more geographically dispersed than on St. Paul Island. In the words of one veteran hunter, "We hunt sea lions on the south side of the island, in Zapadni Bay, depending on when the wind and current is right. Same thing on the north side of the island at North Rookery, Stariya Artel, Tolstoi, and Sea Lion Rocks. If we hunt them in the summer, we go to the South Rookery, where you have to walk -- it's quite a ways back there. We try to stay away from the fur seal rookery where they're mating and having pups. We have to pack the sea lion meat out a mile and a half to two miles." Some people bone out the meat before packing it, but others haul the bone out along with the meat. Sometimes before they can return to the kill site for another load, the foxes will get into the meat. To prevent this they recommend tying the meat up inside a canvas sack.

On St. George, the season is somewhat shorter than on St. Paul. Hunting traditionally begins in January and ends in May. Sometimes in the summer months sea lions are taken on St. George during the fur seal roundups. Since sea lions often occupy the same beaches as fur seals and compete with fur seals for haulout space, occasionally one or two get caught in the drives and are clubbed along with the fur seals. One hunter says that in recent years sea lions have moved away from Dolnoi and Tolstoi. On the south end of the Dolnoi side they are now hauling out in bird rookeries for the first time in modern memory.

At the Northwest Rookery, hunters who shoot sea lions must scramble down the cliffs and attempt to snag their kill with a *qayux̂*. This is dangerous work during the winter months since the rocks are covered with frozen salt spray and are extremely slippery. Hunters must be careful not to fall into the ocean. Once retrieved to the shore, hunters at times can attach a cable on their truck's winch to the sea lion carcass to help pull it up the face of the cliff.

Some St. George hunters are persuaded that the sea lions can actually smell the hunters' cigarette smoke in the wind, and that the animals try to sneak by the hunting sites whenever they get a whiff of this smoke. There is usually an attempt to curtail smoking on the hunting grounds.

According to respondents, sea lion hunting on St. George Island has diminished rather sharply in recent years. Since the mid-1980s hunters have noticed declining numbers of animals. There are fewer taken now because fewer are seen. Hunters feel more obligated now to share their catch because sea lions are getting so scarce it is a treat to get some. Sea lion hunting effort on St. George may also be reduced because in recent years there has been a boom in wage employment associated with harbor development on the west side of the island. With more men working full-time, they have less time to go hunting, especially in mid-winter during the tanner crab season.

Sea Lion Hunting at Atka

At Atka, more sea lions currently are harvested per capita than most any other Alaskan community -- 0.42 sea lions per person in 1992, 0.29 in 1993, and 0.55 in 1994. In contrast with the shore-based hunting on the Pribilof Islands, a majority of the hunting is generally done on the ocean with skiffs. Atkan hunting parties make day trips to hunt, returning back to the village by dusk. Parties may include several skiffs, and each skiff has at least two men and usually three, a skiff driver and one or two gunners. Hunting sea lions is also done on *unisalus*, concealed hunting stations similar

to duck blinds. During turbulent seas when skiff travel is risky, hunters may walk or ride four-wheelers to these stations, although some stations are distant from the village and can only be reached by skiff. Hiding in the rocks, they wait for sea lions to swim by in shallow water, and if they shoot and hit one, they try to retrieve it from shore with a *qayuġ*. In Atka, women sometimes participate in sea lion hunting, something not common elsewhere.

Atka hunters do most of their hunting along the capes and reefs of Amlia Island on the Bering Sea or north side, and on the Pacific or south side of Atka Island as far as a haulout called Saguugux. They also visit a haulout known as Yasis, on the south side of Amlia Island. A primary strategy for hunting by skiff is to locate sea lions swimming in deep water and drive them into the shallows. When sea lions move into shallow water, they are shot and retrieved with a *qayuġ*. The Atka *qayuġ* is a banana-shaped piece of yellow cedar wood with a knob on each end. Around the middle a large halibut hook is lashed to the shank, and from the leading end there is a piece of line with a lead sinker or an old padlock attached. The Atka *qayuġ* is designed in such a way that it sinks with the hook facing the bottom of the ocean. This makes it very easy to snag sea lions which are sinking or lying on the bottom or under the kelp.

After retrieving a sea lion, hunters cut the throats of the animals and bleed them to make sure they are dead before loading them into the skiff. To grip the slippery animal, *qanasis* or slits are cut into hide at certain places so that the animal can be grasped and pulled over the gunwales. Once the animal is in the skiff, a slit is made in the stomach to let the body heat escape. Gutting and cleaning are usually done right at the kill site to reduce the weight of the animal. Atkan elders advise taking care of nearby sea lion rookeries and haulouts by not leaving any dead animals on them. This is the unwritten "law of the land". The sea lion's liver is used by some hunters to assess the healthfulness of the animal. One Atka hunter said he worries about contamination from Russian nuclear waste dumping. "When I catch a seal or sea lion, I

first check the liver. Same with fish. If it is no good, then I get rid of them." Use of sea lion in Atka has been previously described by Veltre and Veltre (1983).

The age structures of animals harvested at Atka differ from those harvested at St. Paul -- rather than juveniles, adults are usually harvested: 65 percent in 1992, 61 percent in 1993, and 62 percent in 1994. Females were about half or more of the harvest -- 54 percent in 1992, 67 percent in 1993, and 52 percent in 1994. This suggests that Atka hunters are using different selection criteria from St. Paul hunters. At Atka, young male sea lions are thought to taste better than females. Females are often taken because they reportedly spend more time on the surface of the water than males, providing opportunities for a good shot.

Hunting activity by season at Atka displayed considerable variability from 1993-1994. The peak hunting month in 1992 was September, in 1993 it was November, and in 1994 it was April. This is because local sea lion movements and sea lion abundance are highly variable around Atka. Hunters generally rely on frequent sightings around the village before going out, and these sightings tend to vary from season to season and from year to year. As in St. George, it is noticed that the best hunting seems to occur early in the morning and again early in the evening.

Expert subsistence hunters are extremely knowledgeable about marine mammal anatomy. The technical anatomical terms are an important part of local indigenous knowledge systems. The terms used at Atka for sea lion body parts are presented in Table 15, courtesy of Moses Dirks, a linguist and Aleut culture expert with the U.S. Fish and Wildlife Service, who was born and raised in Atka. Comparable Alutiiq terms used at Old Harbor on Kodiak island are also presented in Table 15, courtesy of George Inga Sr., who worked with Craig Mishler using the orthography developed by Jeff Leer of the Alaska Native Language Center, University of Alaska, Fairbanks.

TABLE 15.
HARBOR SEAL AND STELLER SEA LION ANATOMY
ALUTIIQ AND WESTERN **ALEUT** TERMINOLOGY

KODIAK ALUTIIQ HARBOR SEAL AND
SEA LION BODY PARTS
Courtesy of George Inga Sr., Old Harbor

head -- naskoq
eye -- iingalak
nose -- oajiiwak
mouth -- kanuk
jaw -- tamluk
teeth -- **hoodit**
tongue -- uluq
whisker -- unguk
ear -- kyudaq
neck -- uyagoq
throat (trachea) -- iigiyaq
shoulder -- tuuzhik
chest -- kaadiq
breast -- amaq
front flipper -- iibik
tail flipper -- iitrak
claw -- stuq
back/backstrap -- pagoq
hide -- amiq
fat/blubber -- ogoq
short tail -- nanilmoq bumyoq
male genitals -- **ci'iq**
female genitals -- ucuq
anus -- utuk
hair -- **cuuluk**
meat -- kamuq
rib -- cakiq
bones -- naneq
heart -- umuan
liver -- arik
kidney -- cakiak
lung -- areq
intestines -- keloq
stomach -- akshaq
gall bladder -- cunqaq
blood -- auk
belly button -- kallajik

Orthography is adapted from Jeff Leer, **A
Conversational Dictionaw of Kodiak Alutiig**.
Fairbanks: Alaska **Native Language Center**,
University of Alaska, 1989.

WESTERN ALEUT HARBOR SEAL AND
SEA LION BODY PARTS
Courtesy of Moses Dirks, Atka

head -- **kamgiġ**
eye -- **daġ**
nose -- **anġusiġ**
mouth -- **agiġiġ**
jaw -- **husiġ**
tooth -- **agaluġ**
tongue -- **umsuġ**
whisker -- inglaakus
ear -- **tutusiġ**
neck -- **uyuġ**
throat (trachea) -- **tunuuluġ**
shoulder -- **qangliġ**
chest -- **simsiġ**
breast -- **maqdaġ**
front flipper -- **chaġ**
tail flipper -- **kiaġ**
claw -- **qagalġiġ**
back/back&rap -- **hachiġ**
skin/hide -- **igluqaġ**
fat/blubber -- **chaduġnaġ**
short tail -- **tihmaquġ**
male genitals -- **qatxaġ**
female genitals -- **chiichiġ**
anus -- **idigasġ**
hair -- **chngaġ**
meat -- **uluġ**
rib -- **sakiigiġ**
skeleton -- **qagnaġ**
heart -- **kunuugiġ**
liver -- **aaġiġ**
kidney -- **daaġtuġ**
lung -- **humgiġ**
intestines -- **iiliigiġ**
stomach -- **kimlaġ**
gall bladder -- **chitxiġ**
blood -- **aamgiġ**
lymphatic gland -- **tuhmuġ**

Orthography is taken from Knut Bergsland,
comp., Aleut Dictionary. Fairbanks: Alaska
Native Language Center, University of Alaska,
1994.

Sea Lion Hunting at Unalaska, Akutan, and Nikolski

Sea lion hunting methods at Unalaska, Akutan, and Nikolski follow patterns like those described for Atka in the previous sections. At Unalaska, sea lions are commonly hunted along the west side of the harbor, from Eider Point and Devilfish Point out to Cheerful Cape. One hunter in Unalaska reported that he banged two rocks together, making a clicking sound that aroused the curiosity of both harbor seals and sea lions and brought them within rifle range. One man in the skiff pounded the rocks while another waited with a rifle poised for the sea lion's head to pop up. One salvage method formerly used at Unalaska for sea lions that have sunk in deep water involved using a series of halibut hooks and sinkers attached to a longline. The hooks were pulled along the bottom of the ocean by two skiffs moving parallel to one another. This method was apparently accomplished with the assistance of a gunner positioned on top of a cliff who did the shooting and who set a marker or pointer so that the skiff drivers could locate the sea lion after it was shot.

Akutan hunters commonly use a .12 gauge shotgun for shooting sea lions. A smaller gauge tends to only wound the animal. One hunter asserted that hunting sea lions was tricky. "They are smart. Sometimes when we are chasing them, they will just dive underwater until we go by; then they head in the other direction. They are fast animals." For this reason it is better to have two skiffs than one. In Akutan, sea lion meat is often called "black meat". One hunter invites others to share in his success by calling people and saying, "Come on down and get some black meat."

Sea lions were reported taken for subsistence at Nikolski in 1992 and 1993, but not in 1994. At Nikolski, hunters report they usually hunt sea lions right in Nikolski Bay, although they have historically gone over to hunt them on the rookery at Anangula. One Nikolski hunter summarized their method for hunting both harbor seals and sea lions: "We try to hunt from the boat using binoculars. When we see one, we motor up to it. One person runs the boat; the other person does the gunning. Then we shoot

them when running. We use a *qayuġ* to retrieve the sinking seal or sea lion, then pull them into the boat. Usually we have three people in the boat to help get them in. We cut out a handle out of the meat and pull them into the boat. We bleed the animal out in the bay and butcher it back here in the village." If a sea lion is too big and heavy to lift into the boat, it may be towed to the beach and butchered there, but one hunter said that by grabbing one flipper and putting an oar under it, a big bull sea lion can be gently rolled into the skiff.

At Unalaska and Akutan, juvenile sea lions were commonly selected for harvest. The proportions of the harvests which were juvenile at Unalaska were 60 percent (1992), 50 percent (1993), and 55 percent (1994); at Akutan, juveniles comprised 83 percent (1992), 39 percent (1993), and 36 percent (1994) of the harvest. By contrast, all the sea lions taken at Nikolski in 1992 and 1993 were adults. The majority of sea lions taken at Unalaska were males: 54 percent (1992), 66 percent (1993), and 81 percent (1994). However, one hunter said he preferred to shoot females because they are not as wary of humans, do not dive under as long as males, and prefer shallower waters. Akutan hunters, like those in St. Paul, do not generally target females. Males comprised the largest percentage of the sea lion harvest at Akutan: 75 percent (1992), 75 percent (1993), and 82 percent (1994). At Nikolski, males were 43 percent of the harvest in 1992 and 100 percent in 1993.

From this review of hunting methods, hunting seasons, and gender selection, it becomes clear that there is a considerable degree of diversity between communities of the Aleutian and Pribilof islands. Hunters in the Pribilofs primarily target juvenile males and do their hunting almost exclusively from the shore. Those in the chain communities target both males and females (although males predominated at Akutan and Unalaska) and do most of their hunting from skiffs.

The Aleut *qayuġ* enjoys widespread use, though the design differs: the *qayuġ* used in the Pribilofs is made to float, while the *qayuġ* developed in the chain

communities is made to sink. While marine mammal hunting in most communities seems to peak during the fall months, each community displays somewhat different hunting seasons. One consistent pattern is that sea lion hunting is low in the summer months (May, June, and July) when sea lions are having their pups and are hauled out at the rookeries. Still, there are exceptions to this also, as when sea lions on the Pribilofs are taken incidentally during summer fur seal roundups. The variety of sea lion hunting methods in the Aleutians and Pribilofs reflects the unique adaptations of communities to local conditions over time.

DISCUSSION

At the state level, the total estimated take of harbor seal in 1994 was the lowest recorded since surveys were started in 1992 (see Fig. 9). A comparison of the three survey years suggests a decline in total harbor seal takes – 2,888 (1992), 2,736 (1993), and 2,621 (1994). At the same time, the apparent decline was less for the numbers of seals harvested -- 2,535 (1992), 2,365 (1993), and 2,313 (1994). Seal harvest estimates were close for 1993 and 1994 (a difference of only 52 seals). The apparent decline in harbor seal take estimates between 1993 and 1994 are almost all attributable to lower numbers of struck and lost animals reported in 1994. Struck and lost rates for harbor seal in 1994 were the lowest recorded to date – 11.8 percent (1994), compared with 13.6 percent (1993) and 12.2 percent (1992).

Similarly, at the state level, there is an apparent decline in sea lion takes over the three survey years -- 549 (1992), 487 (1993), and 416 (1994) (see Fig. 10). But like seals, sea lion harvests are nearly the same for 1993 and 1994 (a difference of only twelve sea lions). The apparent decline in total takes is attributable in large measure to a decline in the number of struck and lost animals reported by hunters – 179 (1992), 139 (1993), and 80 (1994). Struck and lost rates for sea lions were 19.2 percent in 1994 compared with 28.6 percent (1993) and 32.6 percent (1992) (see Table 4). Therefore, while total take estimates are suggestive of slight declines in total animals killed, harvest estimates have been relatively consistent over the past three years for harbor seals and sea lions.

The reasons for lower struck and lost rates for harbor seal and sea lion in 1994 are uncertain. Whether hunting conditions generally were favorable for retrieval of animals in 1994 is not known. The organization of a sea lion hunting group on St. Paul in 1993 may be associated with lower struck and lost rates recorded in that community.

Figure. 9
Estimated Subsistence Takes of Harbor Seal
by Alaska Natives, 1992 - 1994

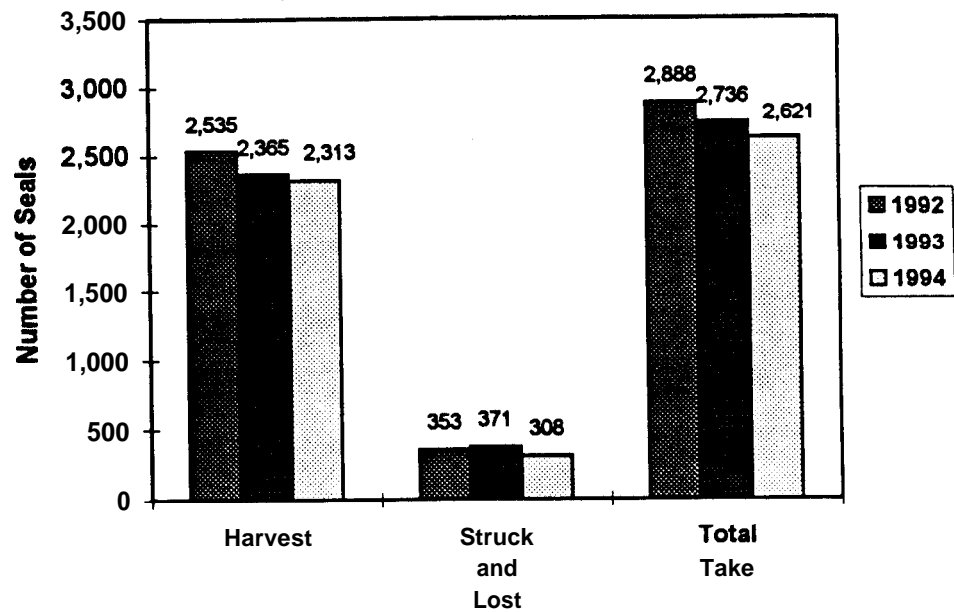


Figure 10
Estimated Subsistence Takes of Sea Lion
by Alaska Natives, 1992 - 1994

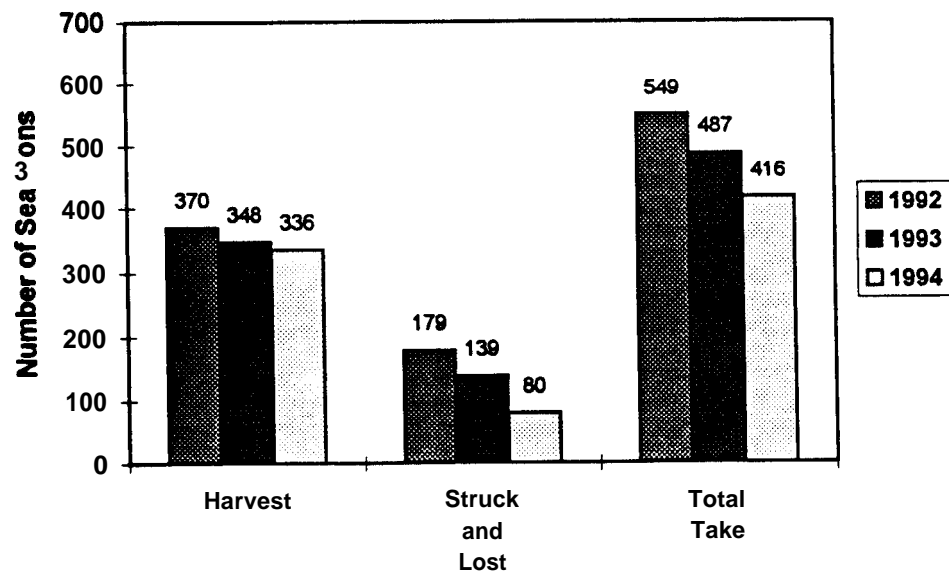


Figure 11
**Estimated Seasonally Adjusted Takes of Harbor Seal
 by Alaska Natives, 1992, 1993, 1994**

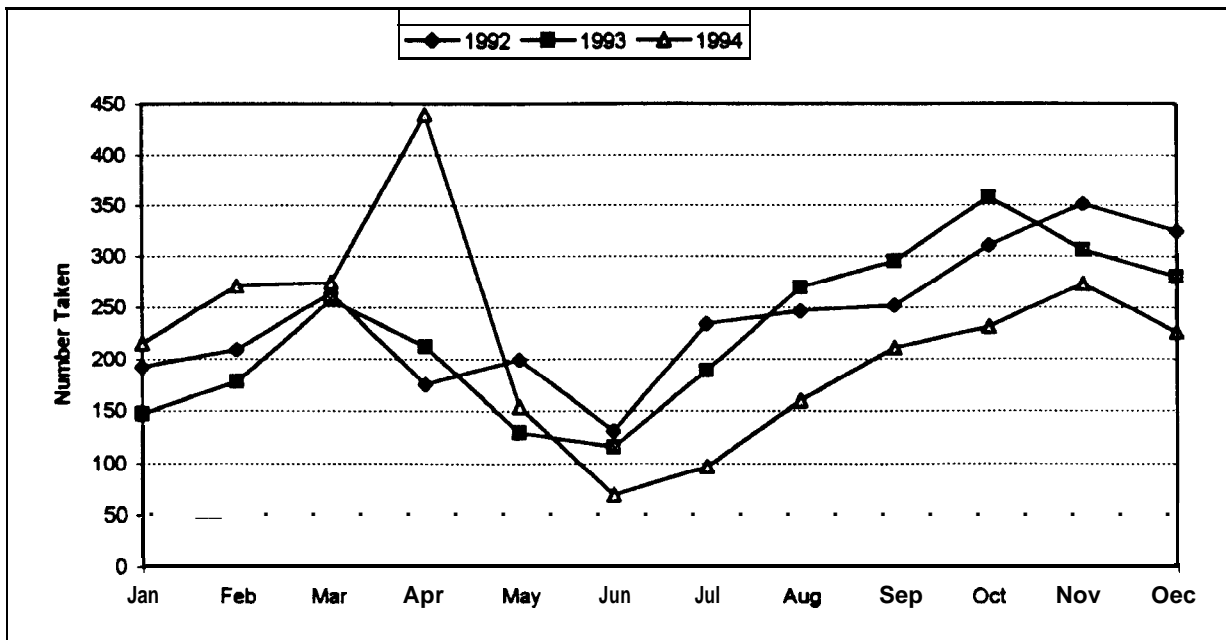
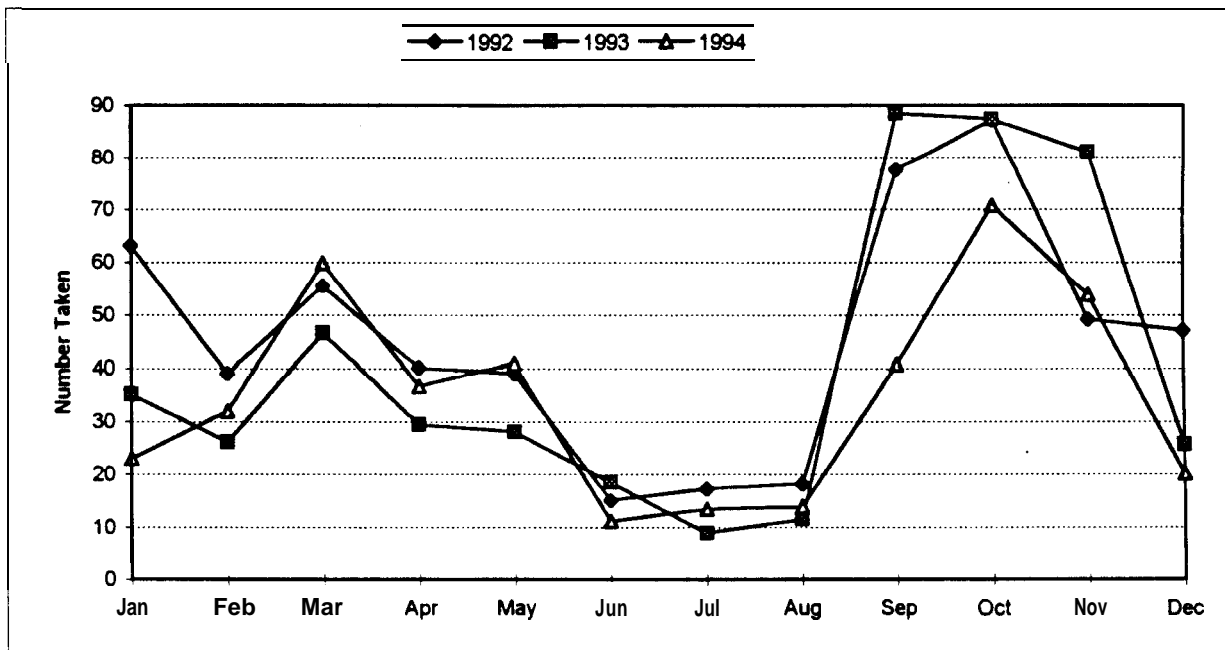


Figure 12
**Estimated Seasonally Adjusted Takes of Sea Lion
 by Alaska Natives, 1992, 1993, 1994**



Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

Figure 13
Sex Ratios (Males:Females)
of Harbor Seal and Sea Lion Harvests
Reported by Alaska Native Hunters, 1992 - 1994

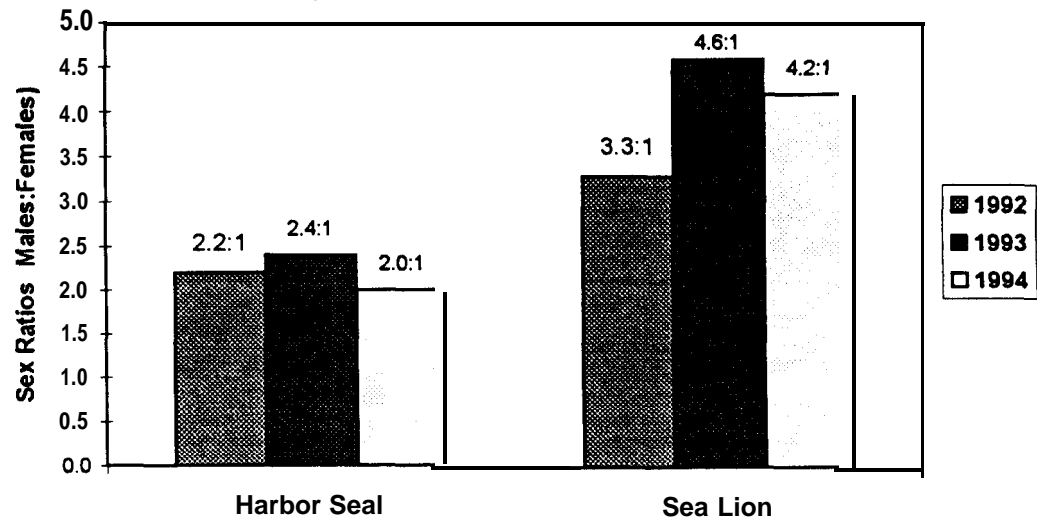
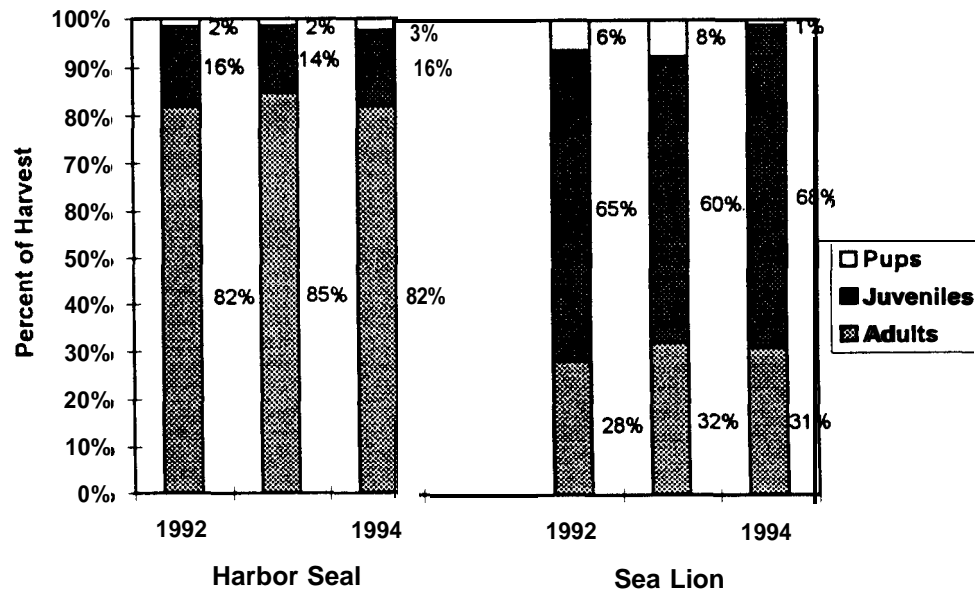


Figure 14
Age Structure (Pups, Juveniles, Adults)
of Harbor Seal and Sea Lion Harvests
Reported by Alaska Native Hunters, 1992 - 1994



The St. Paul hunting group disseminated draft hunting guidelines to hunters that included suggestions for increasing retrieval efficiencies.

At the state level, spring hunting for harbor seal and sea lion was particularly productive in 1994 in comparison with 1992 or 1993 (Figs. 11 and 12). Based on substantial takes reported during the first survey round, we incorrectly anticipated 1994 to be a bumper year for harbor seal and sea lion hunting. However, the higher take levels were not sustained during the second half of the year. In fact, subsistence take levels were lower during second half of 1994 in comparison with other survey years. The result for the entire year was that total takes for harbor seals and sea lions in 1994 were somewhat lower than previous years. This suggests that we do not yet have enough experience to precisely predict what annual take levels will be from first round data sets.

Hunters continued to report harvesting more male than female harbor seals in 1994. Considering kills of known sex, male to female sex ratios have been similar between all three survey years for harbor seal (2.2 to 1 in 1992, 2.4 to 1 in 1993, and 2.0 to 1 in 1994) (see Fig. 13). For sea lion, male to female sex ratios in 1994 came down a bit from the previous year (3.3 to 1 in 1992, 4.6 to 1 in 1993, and 4.2 to 1 in 1994). Considering kills of known age, the age ratios also are relatively similar between years, as shown in Fig. 14. Hunters continued to report harvesting primarily adult harbor seals and primarily juvenile sea lions.

A comparison of regional subsistence takes is presented in Table 16. No general statements can be made about hunting patterns that would apply to all regions. Plainly, subsistence takes do not necessarily track prey population trends over the short term survey cycle, as shown by comparing selected regions in Figs. 15 and 16. For instance, harbor seal takes appear to have declined in southeast Alaska, where seal populations are thought to be relatively stable, while three different take patterns are seen in three regions where harbor seal populations are thought to be in decline --

TABLE 16
SUBSISTENCE HARBOR SEAL AND SEA LION TAKES BY ALASKA NATIVES
BY REGION, 1992, 1993, AND 1994

Region	1992	1992	1992	1993	1993	1993	1994	1994	1994
	Harbor Seal Harvested	Harbor Seal Struck and Lost	Total Harbor Seal Take	Harbor Seal Harvested	Harbor Seal Struck and Lost	Total Harbor Seal Take	Harbor Seal Harvested	Harbor Seal Struck and Lost	Total Harbor Seal Take
Southeast Alaska	1476.8	189.5	1666.2	1425.0	190.0	1615.0	1346.5	151.4	1499.9
North Pacific Rim	377.6	33.4	411.0	412.3	38.5	450.8	411.2	56.8	468.0
Upper Kenai-Cook inlet	51.6	0.0	51.6	49.2	5.6	54.6	18.2	0.0	16.2
Kodiak Island	225.5	13.1	238.6	171.7	20.1	191.8	168.2	3.6	171.7
South Alaska Peninsula	115.5	13.1	128.6	100.0	23.1	123.1	96.6	11.1	109.8
Aleutian Islands	94.3	21.4	115.7	85.0	15.4	100.4	124.9	22.6	147.5
Pribilof Islands	2.3	1.2	3.5	2.3	1.2	3.5	7.3	0.0	7.3
South Bristol Bay	99.0	68.6	167.6	73.6	57.3	130.9	121.6	59.3	180.9
North Bristol Bay	58.4	13.2	71.8	46.1	20.0	66.1	16.2	3.3	19.5
Lake Iliamna	34.1	0.0	34.1	0.0	0.0	0.0	0.0	0.0	0.0
Alaska Total	2535.1	353.4	2888.4	2365.3	371.1	2736.4	2312.8	308.0	2620.8

Region	1992	1992	1992	1993	1993	1993	1994	1994	1994
	Sea Lion Harvested	Sea Lion Struck and Lost	Total Sea Lion Take	Sea Lion Harvested	Sea Lion Struck and Lost	Total Sea Lion Take	Sea Lion Harvested	Sea Lion Struck and Lost	Total Sea Lion Take
Southeast Alaska	5.2	1.3	6.4	0.0	1.1	1.1	3.5	1.1	4.6
North Pacific Rim	25.1	6.5	31.5	26.2	6.7	34.9	16.6	9.7	26.3
Upper Kenai-Cook Inlet	5.7	3.8	9.5	7.8	3.3	11.1	1.4	0.0	1.4
Kodiak Island	41.5	16.3	57.8	41.5	16.9	58.4	57.1	4.2	61.3
South Alaska Peninsula	2.4	0.0	2.4	4.6	1.2	5.7	4.6	1.1	5.7
Aleutian Islands	104.3	30.9	135.2	99.0	24.8	123.8	101.8	20.5	122.3
Pribilof Islands	176.8	120.2	298.8	165.4	80.0	245.4	149.8	43.5	193.3
South Bristol Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Bristol Bay	7.8	0.0	7.8	3.3	3.3	6.5	1.2	0.0	1.2
Lake Iliamna	1.3	0.0	1.3						
Alaska Total	369.8	178.9	548.8	347.8	139.3	487.1	336.0	80.1	416.1

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995

Figure 15
Harbor Seal Takes
for Selected Regions, 1992-1994

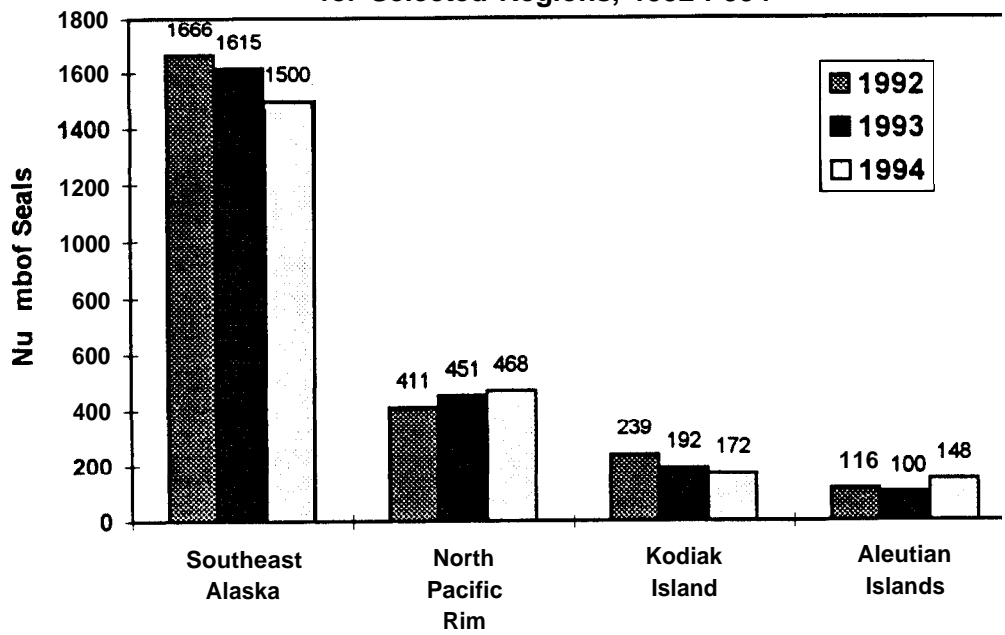


Figure 16
Sea Lion Takes
for Selected Regions, 1992-1994

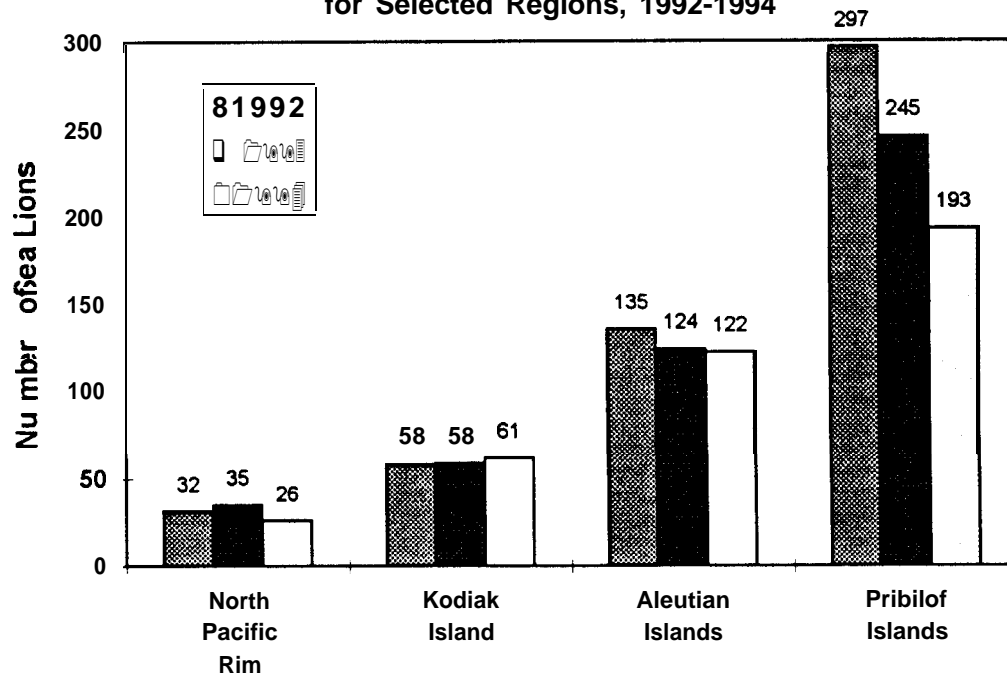
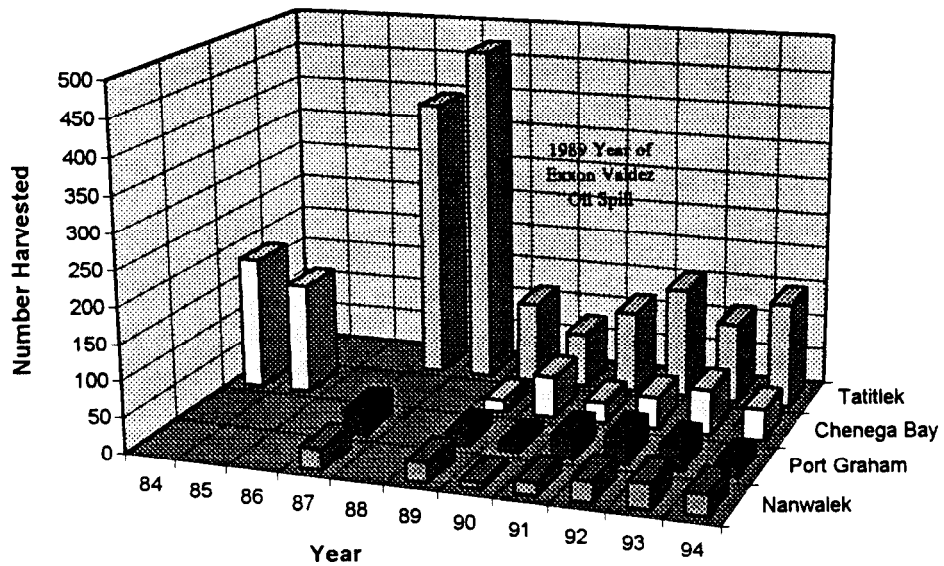
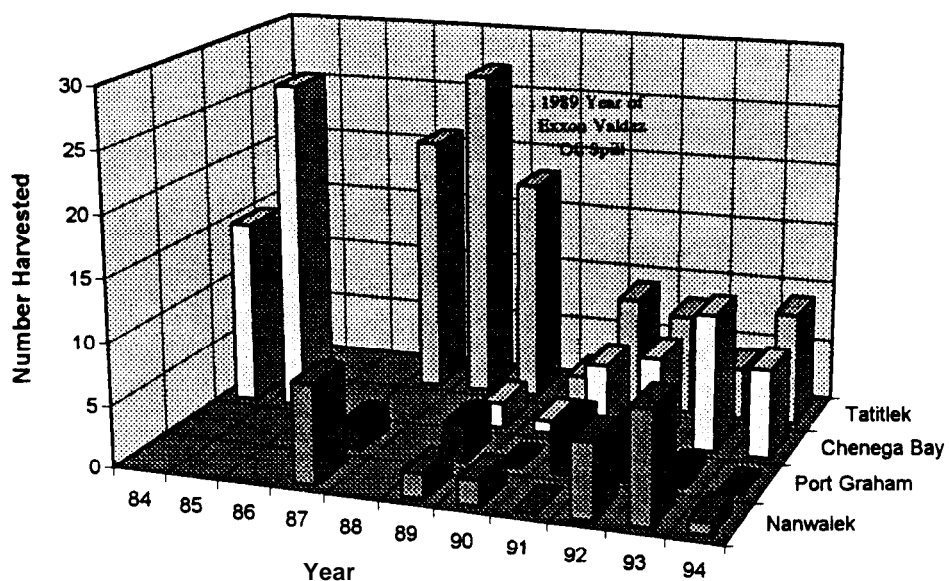


Figure 17
Change in Harbor Seal Harvests,
North Pacific Rim Communities



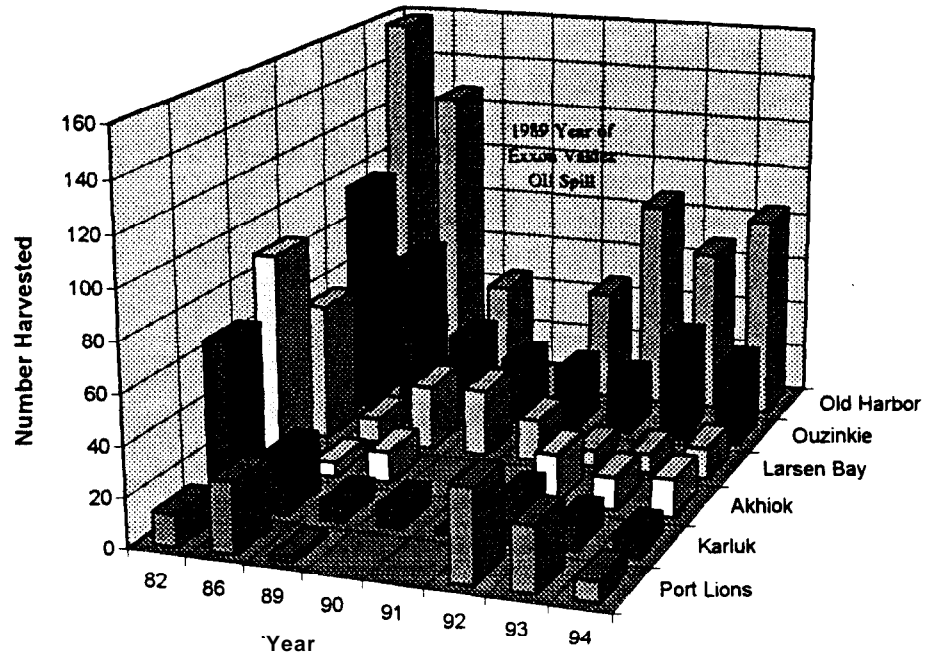
HARBOR SEAL HARVESTS				
Year	Nanwalek	Port Graham	Chenega Bay	Tatitlek
84			186	
85			154	
86				393
87	29	32		473
88				473
89	27	17	16	113
90	9	10	57	76
91	18	30	28	114
92	28	36	43	153
93	34	31	61	111
94	29	16	42	146

Figure 18
Change in Sea Lion Harvests,
North Pacific Rim Communities



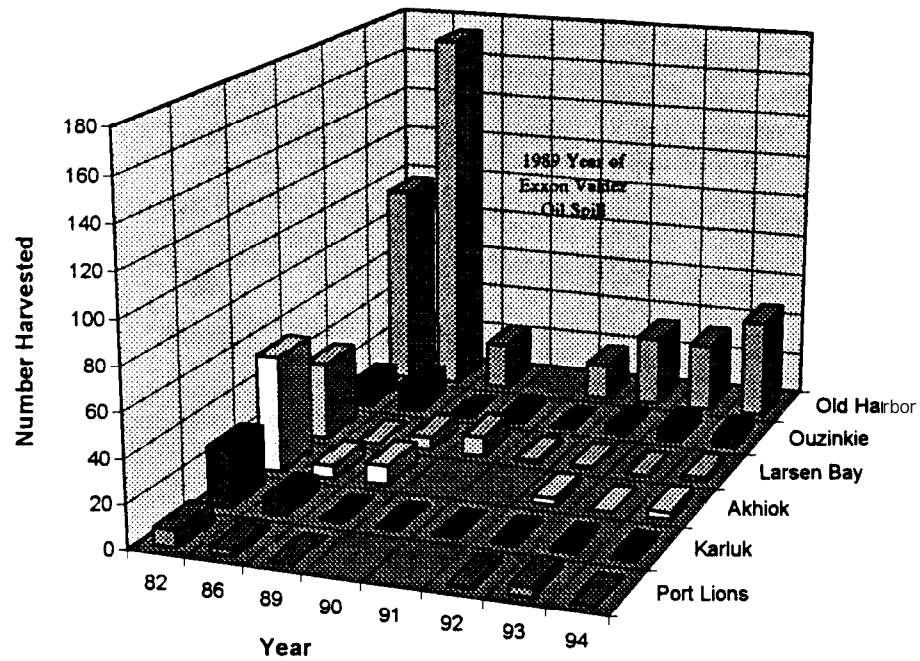
SEA LION HARVESTS				
Year	Nanwalek	Port Graham	Chenega Bay	Tatitlek
84			15	
85			27	
86				
87	8	2		21
88				27
89	2	3	2	18
90	2	0	1	2
91	0	4	6	9
92	6	4	7	8
93	9	1	11	4
94	1	0	7	9

Figure 19
Changes in Harbor Seal Harvests,
Kodiak island Communities



HARBOR SEAL HARVESTS						
	Port Lions	Karluk	Akhiok	Larsen Bay	Ouzinkie	Old Harbor
82	13	66	89	56	96	158
86	28	24	6	10	67	127
89	2	7	13	26	34	45
90		8		27	26	
91		1		17	24	46
92	37	17	20	7	22	87
93	26	10	13	8	41	68
94	8	8	15	13	33	84

Figure 20
Changes in Sea Lion Harvests,
Kodiak island Communities



SEA LION HARVESTS						
	Port Lions	Karluk	Akhiok	Larsen Bay	Ouzinkie	Old Harbor
82	8	27	54	36	11	96
86	3	7	6	0	13	173
89	0	0	9	6	0	22
90		0		9	3	
91		0		1	0	17
92	1	0	3	1	3	33
93	4	0	0	0	5	32
94	0	0	3	2	4	46

TABLE 17
SUBSISTENCE HARBOR SEAL TAKES BY ALASKA NATIVES
BY COMMUNITY, 1992, 1993, AND 1994

Community	1992			1993			1994		
	1992 Harbor Seal Harveeted and	1992 Harbor Seal Struck Lost	1992 Total Harbor Seal Take	1993 Harbor Seal Harveeted and	1993 Harbor Seal Struck Loet	1993 Total Harbor Seal Take	1994 Harbor Seal Harveeted and	1994 Harbor Seal Struck Lost	1994 Total Harbor Seal Take
SOUTHEAST ALASKA									
Angeon	125.1	28.9	154.0	56.6	9.9	66.5	66.9	21.1	88.0
Craig	74.2	0.0	74.2	51.1	9.8	60.9	42.7	6.6	49.3
Haines	30.5	7.9	36.4	23.0	2.3	25.3	39.3	2.2	41.5
Hoonah	350.2	24.8	375.0	324.4	35.8	366.2	240.7	15.0	255.8
Hydaburg	30.0	2.1	32.1	14.0	0.0	14.0	10.0	0.0	10.0
Juneau	122.6	7.6	130.2	59.0	21.8	80.6	78.6	13.5	92.1
Kake	173.9	12.3	166.2	100.8	15.2	115.9	99.3	7.4	106.6
Kasaan	0.0	0.0	0.0						
Ketchikan	90.2	6.5	96.8	42.4	2.9	45.3	31.4	0.0	31.4
Klawock	39.0	1.4	40.3	39.8	0.0	39.8	71.1	0.0	71.1
Klukwan	6.0	2.0	10.0	1.2	0.0	1.2	3.8	1.3	5.0
Metlakatla	1.3	0.0	1.3						
Pelican	0.3	1.4	9.7	5.3	1.1	6.4	4.4	1.1	5.6
Petersburg	22.4	2.6	25.0	4.5	4.5	9.0	15.2	1.3	16.4
Saxman	22.2	1.2	23.5	5.8	0.0	5.6	16.5	0.0	16.5
Sitka	124.7	21.4	146.1	109.3	20.6	129.9	110.5	20.1	130.6
Wrangell	6.0	8.0	14.0	19.5	9.0	28.5	101.0	27.0	128.0
Yakutat	248.0	61.3	309.3	566.4	57.4	625.8	417.1	35.0	452.1
NORTH PACIFIC RIM									
Chenega Bay	42.6	2.3	44.9	60.8	2.2	63.0	42.0	3.9	45.9
Cordova	103.8	8.8	112.5	147.4	5.5	152.9	135.8	9.1	144.9
Nanwaiek	27.9	0.0	27.9	33.9	3.2	37.1	29.0	4.8	33.7
Port Graham	36.2	4.7	40.8	30.6	3.2	33.7	15.5	5.2	20.7
Seldovia	12.4	0.0	12.4	7.9	4.9	12.8	8.0	0.0	8.0
Seward	2.0	0.0	2.0	0.0	0.0	0.0	5.0	0.0	5.0
Tatiilek	152.9	17.7	170.6	110.8	15.5	126.4	145.9	30.9	176.8
Valdez	0.0	0.0	0.0	21.0	4.0	25.0	30.0	3.0	33.0
UPPER KENAI-COOK INLET									
Anchorage	17.1	0.0	17.1	24.4	5.6	30.0	4.2	0.0	4.2
Homer				4.8	0.0	4.8	12.0	0.0	12.0
Kenai	33.3	0.0	33.3	20.0	0.0	20.0			
Tvonek	1.1	0.0	1.1				-	-	-
KODIAK ISLAND									
Akhiok	20.0	3.0	23.0	13.3	0.0	13.3	14.5	0.0	14.5
Karluk	16.5	1.5	18.0	10.0	1.3	11.3	7.5	0.0	7.5
KodiakCity	36.9	0.0	36.9	6.0	1.0	7.0	7.6	0.0	7.6
Larsen Bay	6.5	0.0	6.5	7.7	5.5	13.2	13.4	2.2	15.7
Old Harbor	86.8	5.3	92.1	67.6	2.7	70.3	83.7	1.3	85.0
Ouzinkie	21.8	1.1	23.0	41.2	8.7	49.8	33.4	0.0	33.4
Port Lions	38.9	2.2	39.1	28.0	1.0	27.0	8.0	0.0	8.0

TABLE 17 (CONTINUED)
SUBSISTENCE HARBOR SEAL TAKES BY ALASKA NATIVES
BY COMMUNITY, 1992, 1993, AND 1994

Community	1992 Harbor Seal Harvested	1992 Harbor Seal Struck and Lost	1992 Total Harbor Seal Take	1993 Harbor Seal Harvested	1993 Harbor Seal Struck and Lost	1993 Total Harbor Seal Take	1994 Harbor Seal Harvested	1994 Harbor Seal Struck and Lost	1994 Total Harbor Seal Take
SOUTH ALASKA PENINSULA									
Chignik Bay	2.4	1.2	3.6	8.3	5.0	11.3	3.4	0.0	3.4
Chignik Lagoon	4.0	0.0	4.0	4.3	1.1	5.3	0.0	1.0	1.0
Chignik Lake	8.3	2.1	10.3	15.2	5.5	20.8	20.8	1.3	22.1
False Pass	18.0	0.0	18.0	19.0	0.0	19.0	12.6	2.1	14.7
Ivanof Bay	10.0	1.0	11.0	16.3	4.7	21.0	12.0	1.3	13.3
King Cove	26.0	6.7	32.7	12.8	3.5	16.3	20.9	1.1	22.0
Nelson Lagoon	0.0	0.0	0.0						
Perryville	8.9	2.2	11.1	12.8	2.1	15.0	21.1	0.0	21.1
Sand Point	37.9	0.0	37.9	13.3	1.2	14.4	7.8	4.3	12.1
ALEUTIAN ISLANDS									
Akutan	12.9	4.3	17.1	15.6	4.5	20.1	13.8	3.5	17.3
Atka	28.6	9.9	36.5	32.7	0.0	32.7	73.7	8.7	82.3
Nikolski	5.8	3.5	9.3	4.0	1.0	5.0	6.0	0.0	6.0
Unalaska	47.0	3.7	50.8	32.7	9.9	42.8	31.4	10.5	41.8
PRIBILOF ISLANDS									
St. George	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
St. Paul	2.3	1.2	3.5	2.3	1.2	3.5	7.3	0.0	7.3
SOUTH BRISTOL BAY									
Egegik	3.3	14.3	17.7	7.7	3.3	11.0	12.8	0.0	12.8
King Salmon	10.2	0.0	10.2	21.3	10.7	32.0	17.0	4.5	21.5
Levelock	10.8	0.0	10.8	2.7	5.4	8.1	0.0	0.0	0.0
Naknek	26.6	7.0	33.6	2.7	0.0	2.7	21.4	8.3	29.7
Pilot Point	5.4	4.3	9.7	2.2	0.0	2.2	3.1	0.0	3.1
Port Heiden	40.5	36.0	76.5	30.7	19.9	50.6	63.0	45.3	108.3
South Naknek	2.3	6.9	9.2	6.4	18.0	24.4	4.4	1.1	5.5
NORTH BRISTOL BAY									
Aleknagik	0.0	3.6	3.6	0.0	0.0	0.0	0.0	3.3	3.3
Clarks Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dillingham	29.2	3.8	32.9	18.0	4.2	22.2	16.2	0.0	16.2
Manokotak	4.9	3.8	8.7	3.2	0.0	3.2	0.0	0.0	0.0
Togiak	24.3	2.0	26.3	24.9	15.8	40.7	0.0	0.0	0.0
LAKE ILIAMNA									
Iliamna	10.7	0.0	10.7						
Newhalen	23.4	0.0	23.4						

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

TABLE 18
SUBSISTENCE SEA LION TAKES BY ALASKA NATIVES
BY COMMUNITY, 1992, 1993, AND 1994

Community	1992			1993			1994		
	1992	Sea	Total	1993	Sea	Total	1994	Sea	Total
	Sea	Lion	Sea	Sea	Lion	Sea	Sea	Lion	Sea
	Lion	Struck	Lion	Lion	Struck	Lion	Lion	Struck	Lion
	Harvested	and Lost	Take	Harvested	and Lost	Take	Harvested	and Lost	Take
SOUTHEAST ALASKA									
Angoon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hoonah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydaburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Juneau	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1
Kake	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.2
Kasaan	0.0	0.0	0.0						
Ketchikan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klawock	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Klukwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metlakatla	0.0	0.0	0.0						
Pelican	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petersburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saxman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sitka	3.0	1.3	5.0	0.0	1.1	1.1	1.1	1.1	2.2
Wrangell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yakutat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTH PACIFIC RIM									
Chenega Bay	6.9	1.2	8.1	11.1	6.6	17.7	6.6	0.0	6.6
Cordova	0.0	0.0	0.0	1.5	0.0	1.5	0.0	0.0	0.0
Nanwalek	6.3	0.0	6.3	8.5	1.1	9.5	1.2	2.3	3.5
Port Graham	3.5	1.2	4.7	1.1	0.0	1.1	0.0	0.0	0.0
Seldovia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Seward	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tatiilek	8.3	4.2	12.5	4.1	1.0	5.2	8.8	7.4	16.2
Valdez	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UPPER KENAI-COOK INLET									
Anchorage	5.7	3.8	9.5	7.8	3.3	11.1	1.4	0.0	1.4
Homer				0.0	0.0	0.0	0.0	0.0	0.0
Kenai	0.0	0.0	0.0	0.0	0.0	0.0			
Tyonek	0.0	0.0	0.0						
KODIAK ISLAND									
Akhiok	3.0	1.0	4.0	0.0	0.0	0.0	3.2	0.0	3.2
Karluk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kodiak City	0.0	0.0	0.0	0.0	12.7	12.7	1.1	0.0	1.1
Larsen Bay	1.1	0.0	1.1	0.0	0.0	0.0	2.2	0.0	2.2
Old Sea	32.9	13.2	46.1	32.1	1.0	33.2	46.2	1.3	47.5
Ouzinkie	3.4	0.0	3.4	5.4	2.2	7.6	4.4	2.9	7.3
Port Lions	1.1	2.2	3.3	4.0	1.0	5.0	0.0	0.0	0.0

TABLE 18 (CONTINUED)
SUBSISTENCE SEA LION TAKES BY ALASKA NATIVES
BY COMMUNITY, 1992, 1993, AND 1994

Community	1992 Sea Lion Harvested	1992 Sea Lion Struck and Lost	1992 Total Sea Lion Take	1993 Sea Lion Harvested	1993 Sea Lion Struck and Lost	1993 Total Sea Lion Take	1994 Sea Lion Harvested	1994 Sea Lion Struck and Lost	1994 Total Sea Lion Take
SOUTH ALASKA PENINSULA									
Chignik Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chignik Lagoon	0.0	0.0	0.0	1.1	0.0	1.1	0.0	0.0	0.0
Chignik Lake	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
False Pass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ivanof Bay	0.0	0.0	0.0	2.3	1.2	3.5	0.0	0.0	0.0
King Cove	1.3	0.0	1.3	1.2	0.0	1.2	3.2	1.1	4.3
Nelson Lagoon	0.0	0.0	0.0						
Perryville	1.1	0.0	1.1	0.0	0.0	0.0	1.4	0.0	1.4
Send Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALEUTIAN ISLANDS									
Akutan	25.7	4.3	30.0	14.5	8.9	23.4	12.7	3.5	16.2
Atka	28.6	9.9	38.5	25.1	0.0	25.1	45.5	8.7	54.2
Nikolski	8.2	0.0	8.2	6.0	0.0	6.0	0.0	0.0	0.0
Unalaska	41.8	16.7	58.5	53.4	15.9	69.3	43.6	8.4	51.9
PRIBILOF ISLANDS									
St. George	14.9	55.0	69.9	3.7	14.8	18.6	2.8	17.1	19.9
St. Paul	161.7	65.2	226.8	161.7	65.2	226.8	147.0	26.4	173.4
SOUTH BRISTOL BAY									
Egegik	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
King Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Levelock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Naknek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pilot Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Port Heiden	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Naknek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTH BRISTOL BAY									
Aleknagik	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clark's Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dillingham	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manokotak	3.9	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Togiak	3.9	0.0	3.9	3.3	3.3	6.5	1.2	0.0	1.2
LAKE ILIAMNA									
Iliamna	1.3	0.0	1.3						
Newhalen	0.0	0.0	0.0						

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Surveys, 1995.

takes are increasing in the North Pacific Rim, decreasing on Kodiak Island, and variable on the Aleutian Islands (Fig. 15). For areas where sea lion populations are reported in decline, sea lion takes have been relatively stable across the three survey years for three areas (North Pacific Rim, Kodiak Island, and the Aleutian Islands), and have been decreasing on the Pribilof Islands (Fig. 16). These regional comparisons suggest that subsistence takes are influenced by number of local factors, of which prey abundance is but one variable.

For instance, in the North Pacific Rim, subsistence takes of harbor seal have shown an increase between 1992 and 1994 (Fig. 15). This increase probably reflects a rebound of subsistence hunting following the depression of subsistence activities triggered by the *Exxon Valdez* oil spill in Prince William Sound in 1989. That event severely disrupted subsistence hunting patterns in communities in close proximity to the spill center. Families reduced their subsistence activities the year of the spill because of the uncertainties of the health safety of consuming wild foods harvested from oiled areas. Subsistence productivity levels have shown signs of recovery since the disaster, including a resurgence of marine mammal hunting. This resumption of traditional patterns is probably responsible for the observed increases in takes in an area where populations of seals and sea lions are thought to be declining. Nevertheless, this rebound has not brought seal harvests to prespill levels in two communities (Fig. 17). The 1994 seal harvest in Tatitlek was still half of harvest levels documented in 1987 and 1988 by the Division of Subsistence, and the 1994 seal harvest in Chenega Bay was a quarter of that documented in 1984 and 1985 (Fig. 17). In Port Graham and Nanwalek, which are farther from the oil spill center, seal harvests in 1994 were similar to levels documented before the spill in 1987 (Fig. 17).

In the Kodiak Island area, seal harvests in 1994 (161 seals) were lower than those recorded a decade before -- 478 seals in 1982 and 262 seals in 1986 (Fig. 19). Sea lions harvests in 1994 (55 sea lions) were about a quarter of recent historic levels -

232 sea lions in 1982 and 202 sea lions in 1986 (Fig. 20). Harvests in 1994 were lower in all six Kodiak Island communities compared with levels in 1982. In this case, lower takes of marine mammals may be only partially associated with disruptions by the *Exxon Valdez* oil spill in 1989. Communities farther away from the spill center experienced less severe spill effects (Fall and Utermohle 1995). The declines in marine mammal harvests appear to predate the spill year. According to key respondents, lower harvests in Kodiak Island probably were due in part to the lower availability of seals and sea lions in community hunting areas.

Community harvests continued to display a complex picture between the three survey years (Tables 17 and 18). Comparisons between years demonstrate variability in subsistence takes across years at the community level due to a variety of local ecological, economic, and cultural factors. These local factors probably include weather conditions during harvest seasons, availability of animals to hunters, level of seasonal employment in communities affecting hunter participation, health of key hunters, household and community food requirements, and social obligations to provision funeral ceremonies, among other variables. Causal explanations for any one community's harvest change are likely to be specific to that place and year, and not necessarily applicable to any other set of communities. No simple generalizations can be made comparing 1994 subsistence takes at the community level except that they display a relatively complex picture.

As stated in the first two reports on harbor seal and sea lion takes, single-year hunter surveys cannot provide information on the ranges or trends of harvests over time. Subsistence harvests tend to be dynamic, adapting over time to a number of ecological, economic, and cultural factors. With three years of information, the characteristics of these hunting dynamics begin to take shape. Harbor seal and sea lion harvest levels have not been subject to radical swings from one year to the next, particularly in the aggregate. The least variability in estimates between years is

demonstrated at the statewide level, while the greatest variability between years is demonstrated at the community level, with regional estimates falling intermediate between the two. No great changes are noteworthy at the statewide level in the three survey years, implying that statewide takes may be relatively stable and predictable between years for harbor seal and sea lion. However, the stability at the state level masks more substantial variation in takes at the community level, undoubtedly due to local factors influencing the community take. While takes in some communities have been up on certain years, takes in other communities have been down, such that the variation at the community level evens out for the statewide estimate. The same is true for regions, with increases and decreases documented in individual regions aggregating to produce a relatively consistent statewide estimate.

It is also the case that harvest estimates have been more consistent than take estimates or retrieval rates across the three survey years. This suggests that hunters are conducting their activities toward achieving targeted harvest goals -- retrieving enough animals for feeding a family network. Hunting effort is applied to meet those harvest goals. Presumably, hunters apply more effort on years when hunting is less productive, or when struck and loss rates are higher, to achieve the harvest target. As a result, retrieval rates (and consequently total take levels) display more variation than harvests. The harvest target is undoubtedly set primarily by the food demands of the family network (and for a few specialized hunters, by the demand for marine mammal skin products for crafts). Food demands for marine mammals are a function of the size of the Native population that customarily consumes marine mammals (which is relatively stable over the short term) and the strength of the local subsistence-cash economy (which for particular families and communities *can* be quite variable from year to year). Based on the analysis of this study, subsistence demand for harbor seal and sea lion products apparently has been relatively stable in rural Alaska as a whole over the last three years.

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APPENDIX A
SURVEY INSTRUMENT USED
IN HOUSEHOLD INTERVIEWS, 1994

The Subsistence Harvest of Harbor Seal and Sea Lion by Alaska Natives in 1994, by Robert J. Wolfe and Craig Mishler, Technical Paper No. 236, Division of Subsistence, Alaska Department of Fish and Game, Juneau, July 1994. Final Report For Year Three, Subsistence Study and Monitor System (No. 50ABNF200055), Prepared for the National Marine Fisheries Service.

ARE ANY MEMBERS OF YOUR HOUSEHOLD ALASKA NATIVES?
YES: _____ NO: _____ THANK YOU FOR YOUR COOPERATION.
This survey is only relevant to Native households.

How many people lived in your household in 1994?
FOR ANCHORAGE ONLY: _____ Where did you hunt? _____

HARBOR SEAL

DID YOU OR MEMBERS OF YOUR HOUSEHOLD HUNT OR USE HARBOR SEALS IN 1994?

YES _____ NO _____

(IF YES, PLEASE COMPLETE THE FOLLOWING QUESTIONS:) (IF NO, GO TO SEA LION PAGE.)

During 1994, did you or your household:

Yes No

1. Use harbor seals (meat, hides, or oil)?
2. Hunt harbor seals?
3. Kill and retrieve harbor seals?
4. Receive harbor seals from other households or communities?
5. Give away harbor seals to other households or communities?

IF YES TO QUESTION 2 OR 3 ABOVE, GO TO QUESTION 6. IF NO, COMPLETE SEA LION SURVEY.

6. How many harbor seals did your household kill and retrieve? [Enter in total box.]

7. In which months were they killed and retrieved? How many in (January, etc.)? [Enter the numbers by month.]

HARBOR SEAL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
TOTAL														

8. Of the harbor seals killed and retrieved in (January, etc.), how many were male, female, and how many were pups, juveniles, or adults?

[Enter the numbers by month.]

HARBOR SEAL (Detail)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
----------------------	---------	----------	-------	-------	-----	------	------	--------	-----------	---------	----------	----------	---------	-------

ADULT	MALE													
	FEMALE													
	UNKNOWN													
JUVENILE	MALE													
	FEMALE													
	UNKNOWN													
PUP	MALE													
	FEMALE													
	UNKNOWN													
UNKNOWN AGE	MALE													
	FEMALE													
	UNKNOWN													

During 1994, 9. How many harbor seal were struck and lost by your household? [Enter number in total box.]

10. In which months were they struck and lost? [Enter numbers by month.]

HARBOR SEAL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
STRUCK AND LOST														

Community: _____ () HHID: _____ LIST: Hunter Random Interviewer: _____ Date: _____

SEA LIONS

DID YOU OR MEMBERS OF YOUR HOUSEHOLD HUNT OR USE SEA LIONS IN 1994?

YES NO
(IF YES, PLEASE COMPLETE THE FOLLOWING QUESTIONS:) (IF NO, THAT COMPLETES THIS SURVEY. THANK YOU.)

During 1994, did you or your household:

	Yes	No
1. Use sea lions (meat, hides, or oil)?		
2. Hunt sea lions?		
3. Kill and retrieve sea lions?		
4. Receive sea lions from other households or communities?		
5. Give away sea lions to other households or communities?		

IF YES TO QUESTION 2 OR 3 ABOVE, GO TO QUESTION 6. IF NO, THIS COMPLETES THE SURVEY. THANK YOU FOR YOUR COOPERATION.

6. How many sea lions did your household kill and retrieve? [Enter total number in box.]
7. In which months were they killed and retrieved? How many in (January, etc.)? [Enter the numbers by month.]

SEA LIONS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
TOTAL														

8. Of the sea lions killed and retrieved in (January, etc.), how many were male, female, and how many were pups, juveniles, or adults?
[Enter the numbers by month.]

SEA LIONS (Detail)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
ADULT														
MALE														
FEMALE														
UNKNOWN														
JUVENILE														
MALE														
FEMALE														
UNKNOWN														
PUP														
MALE														
FEMALE														
UNKNOWN														
UNKNOWN														
MALE														
FEMALE														
UNKNOWN														

During 1994,

9. How many sea lions were struck and lost by your household? [Enter number in total box.]

10. In which months were they struck and lost? [Enter numbers by month.]

SEA LIONS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
STRUCK AND LOST														

THANK YOU FOR YOUR COOPERATION.

Community: () HHID: LIST: Hunter Random Interviewer: Date:

APPENDIX B
SUBSISTENCE TAKES OF
HARBOR SEAL AND SEA LION
BY REGION

1-2	SOUTHEAST ALASKA
3-4	NORTH PACIFIC RIM
5-6	UPPER KENAI - COOK INLET
7-8	KODIAK ISLAND
9-10	SOUTH ALASKA PENINSULA
11-12	ALEUTIAN ISLANDS
13-14	PRIBILOF ISLANDS
15-16	SOUTH BRISTOL BAY
17-18	NORTH BRISTOL BAY

Table 1. SEA LION AND HARBOR SEAL HARVESTS: SOUTHEAST ALASKA, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	563	998	1559
	Surveyed Households	489	215	704
	Sampling Fraction	66.9%	21.6%	46.2%
	Sample Household Members	1812	736	2550
	Estimated Household Members	2087.4	3578.5	56650

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea	Harbor		Sea	Harbor
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
Used	N/A	N/A	Total Number Harvested	3.5	1348.5
Hunted	N/A	N/A	Total Number Struck and Lost	1.1	151.4
Harvested	N/A	N/A	Total Number Taken	4.6	1499.9
Received	N/A	N/A			
Gave Away	N/A	N/A	Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sap	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	2	0	1	0	0	0	3
Struck & Lost	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Take	0	0	1	0	0	0	0	2	0	1	0	0	0	4
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.1	0.0	0.0	0.0	3.5
Struck & Lost	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	2.3	0.0	1.1	0.0	0.0	0.0	4.6
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.1	0.0	0.0		3.5
Struck & Lost	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.1
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	2.3	0.0	1.1	0.0	0.0		4.6
Total Take (%)	0.0%	0.0%	24.4%	0.0%	0.0%	0.0%	0.0%	51.3%	0.0%	24.4%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.1	1.1	1.1	1.1	11	3.5	3.5	4.6	4.6	4.6		
Cum. Take (%)	0.0%	0.0%	24.4%	24.4%	24.4%	24.4%	24.4%	75.6%	75.6%	100.0%	100.0%	100.0%		
HARBOR SEAL HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	99	112	120	175	56	16	19	34	43	61	116	95	149	1117
Struck & Lost	5	16	12	31	1	1	0	3	3	8	9	4	40	133
Total Take	104	126	132	206	57	17	19	37	46	69	127	99	189	1250
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	121.1	141.2	137.4	1966	70.3	19.4	22.8	39.3	49.3	94.0	136.0	112.0	207.8	1346.5
Struck & Lost	7.2	16.1	14.1	328	1.1	1.1	0.0	3.3	3.6	0.4	9.7	4.3	47.6	151.4
Total Take	126.9	159.3	151.4	2294	71.4	20.5	22.8	42.5	52.9	102.4	146.5	116.3	255.6	1499.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	141.2	166.6	157.9	241.6	93.5	23.4	28.9	47.7	57.1	166.4	157.3	124.7		1346.5
Struck & Lost	8.6	28.6	16.1	45.3	1.1	1.1	0.0	3.3	6.4	0.4	20.2	4.3		151.4
Total Take	149.8	197.5	174.0	286.9	94.6	24.5	28.9	51.0	63.4	114.8	165.5	129.0		1499.9
Total Take (%)	10.0%	13.2%	11.6%	19.1%	6.3%	16%	1.9%	3.4%	4.2%	7.7%	12.4%	8.6%		100.0%
Cum. Take	149.8	347.3	521.3	608.2	902.8	927.3	956.2	1007.2	1070.6	1185.4	1370.8	1499.9		
Cum. Take(%)	10.0%	23.2%	34.6%	53.9%	60.2%	61.8%	63.6%	67.2%	71.4%	79.0%	91.4%	100.0%		

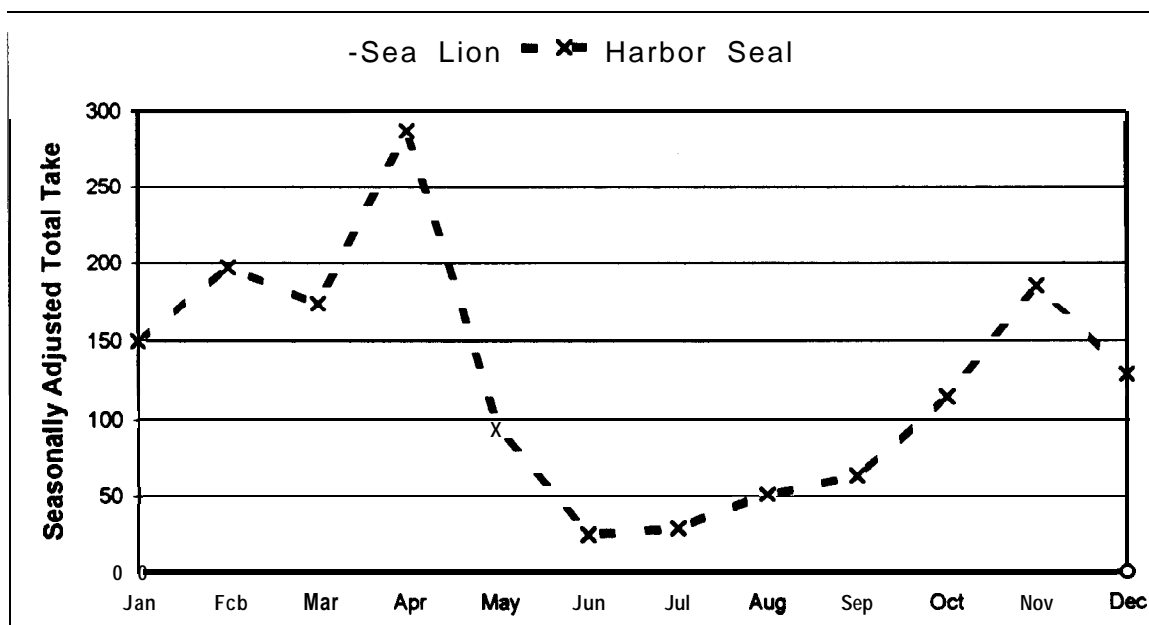
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 1. (cont.) SEA LION AND HARBOR SEAL HARVESTS: SOUTHEAST ALASKA, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	lb	Number	%	Number	%
Adult Male	2	00.7%	2.3	07.0%	477	42.7%	504.5	41.9%
Adult Female	0	0.0%	0.0	0.0%	252	22.6%	297.5	22.1%
Adult Unknown Sex	0	0.0%	0.0	0.0%	267	23.9%	330.9	24.5%
Juvenile Male	1	33.3%	1.1	32.2%	40	4.3%	54.0	4.1%
Juvenile Female	0	0.0%	0.0	0.0%	19	1.7%	21.2	1.6%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	23	2.1%	26.0	2.0%
Pup Male	0	0.0%	0.0	0.0%	1	0.1%	1.0	0.1%
Pup Female	0	0.0%	0.0	0.0%	1	0.1%	1.2	0.1%
Pup Unknown Sex	0	0.0%	0.0	0.0%	4	0.4%	4.9	0.4%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	25	2.2%	45.7	3.4%
Total	3	100.0%	3.5	100.0%	1117	100.0%	1348.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Struck/ Total			Year	Struck/ Total		
	Harvest	Lost	Take		Harvest	Lost	Take
1992	5.2	1.3	6.4	1992	1475.4	169.5	1664.9
1993	0.0	1.1	1.1	1993	1425.0	190.0	1615.0
1994	3.6	1.1	4.6	1994	1348.5	151.4	1499.9

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence **Study** and **Monitor** System for Sea **Lions** and Harbor Seals in Alaska.

Table 2. SEA LION AND HARBOR SEAL HARVESTS: NORTH PACIFIC RIM, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	40	548	588
	Surveyed Households	34	197	231
	Sampling Fraction	65.0%	35.9%	39.3%
	Sample Household Members	110	614	724
	Estimated Household Members	125.3	1561.0	1686.3

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea	Harbor		Sea	Harbor
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
used	13.2%	43.6%	Total Number Harvested	16.6	411.2
Hunted	35%	143%	Total Number Struck and Lost	9.7	56.8
Harvested	1.3%	9.9%	Total Number Taken	26.3	468.0
Received	13.0%	40.5%			
Gave Away	6.6%	16.6%	Number Harvested Per Capita	0.01	0.24

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	2	1	0	0	1	0	0	0	1	0	5	12
Struck & Lost	0	0	0	2	0	0	0	0	0	0	0	0	5	7
Total Take	1	1	2	3	0	0	1	0	0	0	1	0	10	19
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	13	1.3	2.8	1.2	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	7.4	16.6
Struck & Lost	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	9.7
Total Take	1.3	1.3	2.8	3.5	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	14.7	26.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	13	1.3	10.2	1.2	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0		16.6
Struck & Lost	0.0	0.0	7.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		9.7
Total Take	13	1.3	17.5	3.5	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0		26.3
Total Take (%)	5.0%	5.0%	66.7%	13.3%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	5.0%	0.0%		100.0%
Cum. Take	13	2.6	20.1	23.6	23.6	23.6	24.9	24.9	24.9	24.9	26.3	26.3		
Cum. Take (%)	5.0%	10.0%	76.7%	90.0%	90.0%	90.0%	95.0%	95.0%	95.0%	95.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	13	19	20	43	17	10	16	26	21	33	22	31	30	301
Struck & Lost	1	2	0	2	0	0	0	0	0	6	1	5	26	43
Total Take	14	21	20	45	17	10	16	26	21	39	23	36	56	344
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	16.8	25.9	39.2	624	220	131	204	33.0	27.5	43.8	27.9	38.7	40.5	411.2
Struck & Lost	1.5	2.6	0.0	2.8	0.0	0.0	0.0	0.0	0.0	7.6	1.3	5.1	35.7	56.8
Total Take	183	28.5	39.2	652	220	131	20.4	33.0	27.5	51.6	29.2	43.8	76.2	468.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	204	29.5	41.4	707	25.1	15.0	21.6	39.9	29.8	45.5	290	43.3		411.2
Struck & Lost	15.5	26	0.6	175	0.4	0.2	0.6	1.7	0.6	7.8	1.3	8.2		56.8
Total Take	35.9	32.1	42.0	862	255	15.2	22.1	41.5	30.3	53.3	30.3	51.5		468.0
Total Take (a)	7.7%	6.9%	9.0%	18.9%	5.4%	3.2%	47%	8.9%	6.5%	11.4%	6.5%	11.6%		100.0%
Cum. Take	359	68.0	110.0	198.2	223.7	238.9	261.0	302.6	332.9	386.3	416.6	468.0		
Cum. Take (%)	7.7%	14.5%	23.5%	42.4%	47.0%	51.0%	55.0%	64.7%	71.1%	82.5%	89.0%	100.0%		

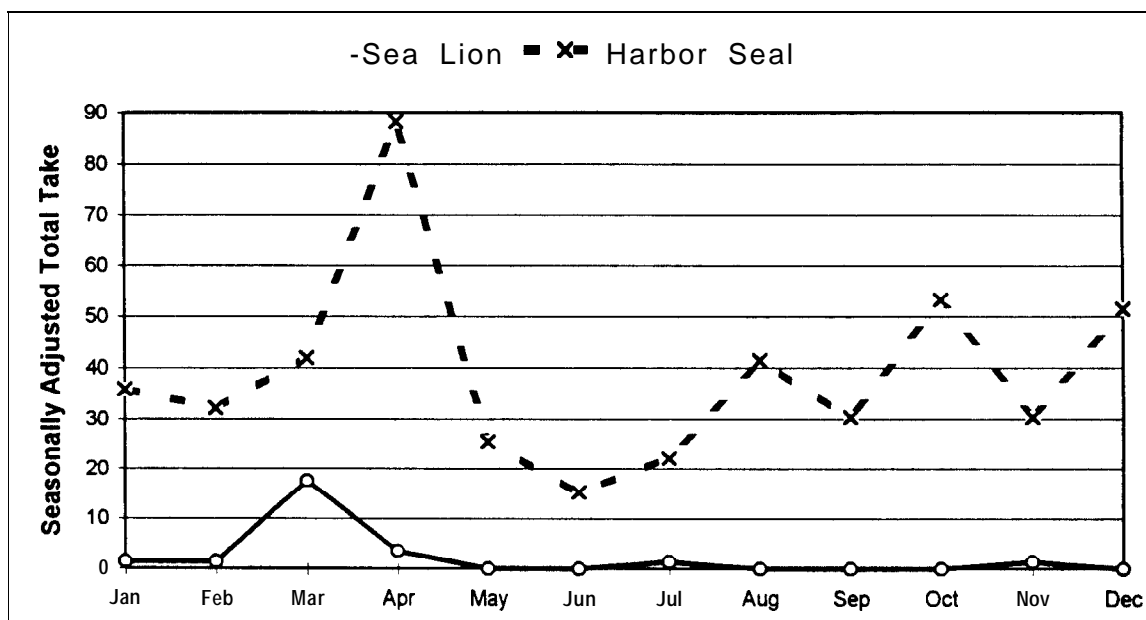
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 2. (cont.) SEA LION AND HARBOR SEAL HARVESTS: NORTH PACIFIC RIM, 1994

HARVEST BY AGE AND SEX

	SeaLion				Harbor Seal			
	Reported by		Community Est		Reported by		Community Est	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	2	16.7%	2.6	15.8%	63	20.9%	78.2	19.0%
Adult Female	0	0.0%	0.0	0.0%	27	9.0%	32.1	7.8%
Adult Unknown Sex	0	0.0%	0.0	0.0%	41	13.6%	72.7	17.7%
Juvenile Male	2	16.7%	2.6	15.8%	23	7.6%	29.4	7.2%
Juvenile Female	1	8.3%	1.3	7.9%	6	2.6%	7.6	1.8%
Juvenile Unknown Sex	1	8.3%	1.2	7.0%	26	8.6%	33.3	8.1%
Pup Male	0	0.0%	0.0	0.0%	3	1.0%	3.8	0.9%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	14	4.7%	18.9	4.6%
Male Unknown Age	0	0.0%	0.0	0.0%	3	1.0%	4.4	1.1%
Female Unknown Age	0	0.0%	0.0	0.0%	4	1.3%	5.9	1.4%
Unknown Sex and Age	6	50.0%	8.8	53.4%	91	39.2%	125.0	39.4%
Total	12	100.6%	16.6	100.0%	301	100.0%	411.2	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	25.1	6.5	31.5	1992	377.6	33.4	411.0
1993	26.2	8.7	34.9	1993	412.3	36.5	459.8
1994	16.6	9.7	26.3	1994	411.2	56.8	468.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

Table 3. SEA LION & HARBOR SEAL HARVESTS: UPPER KENAI-COOK INLET, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	64		64
	Surveyed Households	46		46
	Sampling Fraction	71.9%		71.9%
	Sample Household Members	152		152
	Estimated Household Members	210.7		210.7

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea	Harbor		Sea	Harbor
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
Used	N/A	N/A	Total Number Harvested	1.4	16.2
Hunted	N/A	N/A	Total Number Struck and Lost	0.0	0.0
Harvested	N/A	N/A	Total Number Taken	1.4	16.2
Received	N/A	N/A			
Gave Away	N/A	N/A	Number Harvested Per Capita	N/A	N/A

<i>SEA LION HARVEST BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	1	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0		1.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0		1.4
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

<i>HARBOR SEAL HARVEST BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	9	1	0	1	0	1	1	0	0	0	0	13
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	9	1	0	1	0	1	1	0	0	0	0	13
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	10.8	1.4	0.0	1.4	0.0	1.4	1.2	0.0	0.0	0.0	0.0	16.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	10.8	1.4	0.0	1.4	0.0	1.4	1.2	0.0	0.0	0.0	0.0	16.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	10.6	1.4	0.0	1.4	0.0	1.4	1.2	0.0	0.0	0.0		16.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	10.8	1.4	0.0	1.4	0.0	1.4	1.2	0.0	0.0	0.0		16.2
Total Take (%)	0.0%	0.0%	66.5%	8.7%	0.0%	8.7%	0.0%	8.7%	74%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	10.8	12.2	12.2	13.6	13.6	15.0	16.2	16.2	16.2	16.2		
Cum. Take (%)	0.0%	0.0%	66.5%	75.2%	75.2%	83.9%	83.9%	92.6%	100.0%	100.0%	100.0%	100.0%		

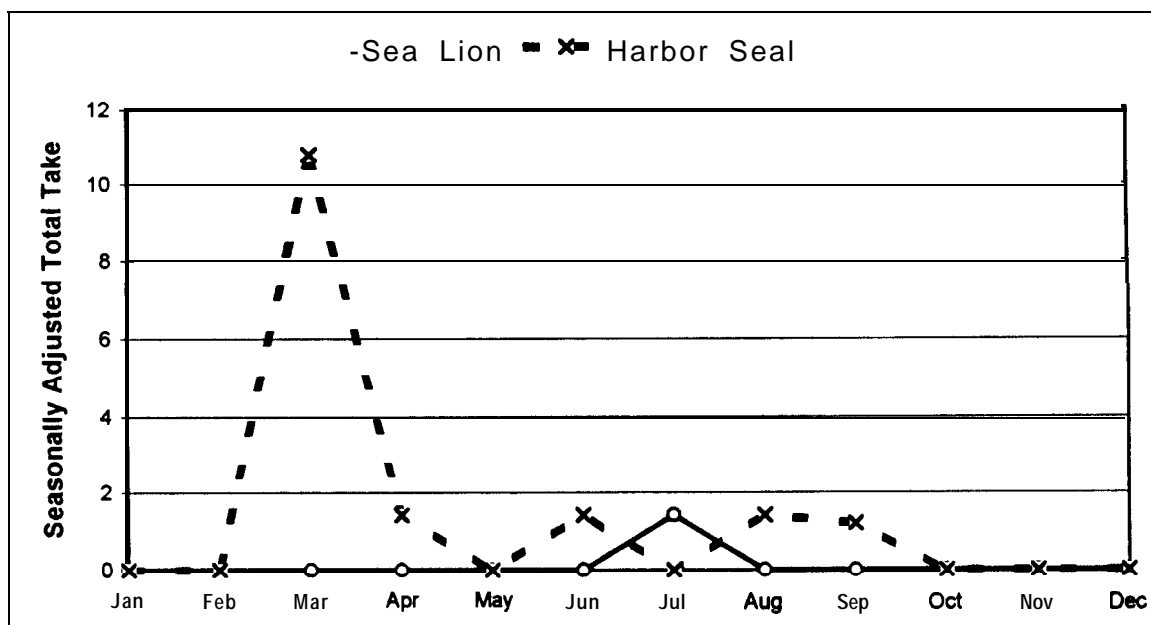
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska.

Table 3. (cont.) SEA LION AND HARBOR SEAL HARVESTS: UPPER KENAI-COOK INLET, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	100.0%	1.4	100.0%	1	7.7%	1.4	6.7%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	11	64.6%	13.6	63.9%
Juvenile Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	1	7.7%	1.2	7.4%
Total	1	100.0%	1.4	100.0%	13	100.0%	16.2	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	5.7	3.8	9.5	1992	17.1	0.0	17.1
1993	7.8	3.3	11.1	1993	29.2	5.6	34.6
1994	1.4	0.0	1.4	1994	16.2	0.0	16.2

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

Table 4. SEA LION AND HARBOR SEAL HARVESTS: KODIAK ISLAND, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
MIXED	Total Native Households	50	252	302
	Surveyed Households	41	171	212
	Sampling Fraction	82.0%	67.9%	70.2%
	Sample Household Members	156	549	705
	Estimated Household Members	189.5	ai5.5	1004.9

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	<u>Sea</u>	<u>Harbor</u>		<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
used	390%	60.8%	Total Number Harvested	57.1	168.2
Hunted	16.0%	26.4%	Total Number Struck and Lost	4.2	3.6
Harvested	11.2%	22.3%	Total Number Taken	61.3	171.7
Received	35.4%	52.6%			
Gave Away	11.0%	23.1%	Number Harvested Per Capita	0.06	0.17

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	3	2	2	0	0	0	0	1	4	13	a	5	1	39
Struck & Lost	2	0	0	0	0	0	0	0	0	1	0	0	0	3
Total Take	5	2	2	0	0	0	0	1	4	14	a	5	1	42
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.1	3.8	2.9	0.0	0.0	0.0	0.0	1.1	5.4	21.5	10.5	6.6	1.1	57.1
Struck & Lost	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	4.2
Total Take	7.0	3.8	2.9	0.0	0.0	0.0	0.0	1.1	5.4	22.9	10.5	6.6	1.1	61.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.2	3.9	3.0	0.1	0.1	0.1	0.1	1.2	5.5	21.6	10.6	6.7		51.1
Struck & Lost	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0		4.2
Total Take	7.1	3.9	3.0	0.1	0.1	0.1	0.1	1.2	5.5	22.9	10.6	6.7		61.3
Total Take (%)	11.6%	6.4%	4.9%	0.1%	0.1%	0.1%	0.1%	2.0%	8.9%	37.4%	17.3%	10.9%		100.0%
Cum. Take	7.1	11.0	14.0	14.1	14.2	14.3	14.4	15.6	21.1	44.0	54.6	61.3		
Cum. Take(%)	11.6%	18.0%	22.9%	23.0%	23.2%	23.3%	23.5%	25.4%	34.4%	71.8%	89.1%	100.0%		
HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	15	9	12	5	2	6	0	9	14	13	19	18	0	122
Struck & Lost	1	0	0	2	0	0	0	0	0	0	0	0	0	3
Total Take	16	9	12	7	2	6	0	9	14	13	19	18	0	125
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	20.2	12.9	18.8	5.9	2.9	7.2	0.0	12.5	18.3	17.8	26.8	24.7	0.0	166.2
Struck & Lost	1.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Total Take	21.3	12.9	18.8	a.4	2.9	7.2	0.0	12.5	18.3	17.8	26.8	24.7	0.0	171.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	20.2	12.9	18.8	5.9	2.9	7.2	0.0	12.5	18.3	17.8	26.8	24.7		166.2
Struck & Lost	1.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		3.6
Total Take	21.3	12.9	18.8	a.4	2.9	7.2	0.0	12.5	18.3	17.8	26.8	24.7		171.7
Total Take (%)	12.4%	7.5%	10.9%	4.9%	1.7%	4.2%	0.0%	7.3%	10.7%	10.4%	156%	14.4%		100.0%
Cum. Take	21.3	34.3	53.0	61.4	64.3	71.5	71.5	84.0	102.3	120.2	147.0	171.7		
Cum. Take(%)	12.4%	19.9%	30.9%	35.6%	37.4%	41.6%	41.6%	48.9%	59.6%	70.0%	85.6%	100.0%		

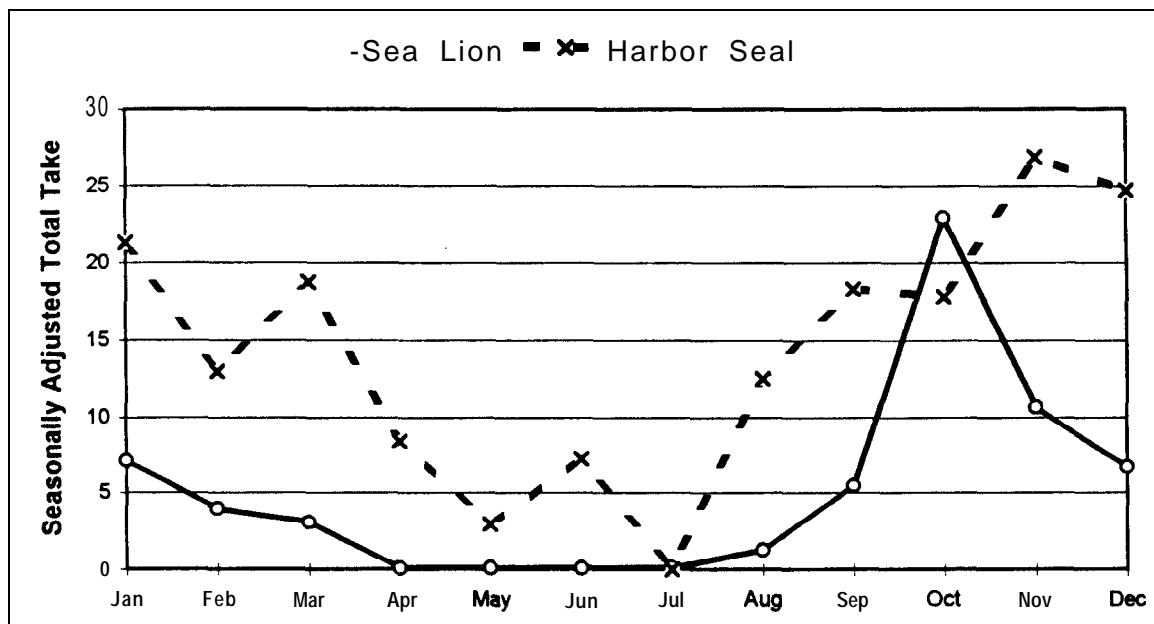
SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 4. (cont.) SEA LION AND HARBOR SEAL HARVESTS: KODIAK ISLAND, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	8	20.5%	12.0	21.0%	38	31.1%	53.9	32.1%
Adult Female	6	15.4%	9.0	15.7%	16	13.1%	21.7	12.9%
Adult Unknown Sex	5	12.8%	6.4	11.2%	16	13.1%	21.3	12.7%
Juvenile Male	10	25.6%	15.4	27.1%	10	140%	24.4	14.5%
Juvenile Female	6	15.4%	9.0	15.7%	13	10.7%	18.1	10.8%
Juvenile Unknown Sex	3	7.7%	4.2	7.4%	15	12.3%	20.0	11.9%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	1	0.8%	1.1	0.7%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	1	2.6%	1.1	1.9%	5	4.1%	7.5	4.5%
Total	39	100.0%	57.1	100.0%	122	100.0%	168.2	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	41.5	16.3	57.6	1992	225.5	13.1	236.6
1993	41.5	16.9	58.4	1993	171.7	20.1	191.8
1994	57.1	4.2	61.3	1994	166.2	3.6	171.7

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 5. SEA LION AND HARBOR SEAL HARVESTS: SOUTH ALASKA PENINSULA, 1994

SAMPLING DESIGN:		Active	Other	Total
MIXED	Total Native Households	28	379	407
	Surveyed Households	25	182	207
	Sampling Fraction	89.3%	48.0%	50.9%
	Sample Household Members	104	602	706
	Estimated Household Members	116.6	12361	1352.7

HARVEST AND USE INFORMATION

Percentage of Native Households:			Estimated Community Harvest and Take (Expanded):		Sea Harbor	
	Sea Lion	Harbor Seal			Lion	Seal
Used	2.5 %	39.5%	Total Number Harvested		4.6	96.6
Hunted	2.2%	15.4%	Total Number Struck and Lost		1.1	11.1
Harvested	1.1%	10.6%	Total Number Taken		5.7	109.8
Received	1.7%	24.1%				
Gave Away	1.6%	13.3%	Number Harvested Per Capita		0.00	0.07

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	2	0	1	0	0	0	0	0	0	4
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total Take	0	0	1	0	2	0	1	0	0	0	0	0	1	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	2.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Total Take	0.0	0.0	1.1	0.0	2.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	1.1	5.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	2.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0		4.6
Struck & Lost	0.0	0.0	0.4	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.1
Total Take	0.0	0.0	1.4	0.0	2.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0		5.7
Total Take (%)	0.0%	0.0%	25.1%	0.0%	50.2%	0.0%	24.6%	0.0%	0.0%	0.0%	0.0%	0.0%		100.9%
Cum. Take	0.0	0.0	1.4	1.4	4.3	4.3	5.7	5.7	5.7	5.7	5.7	5.7		
Cum. Take (%)	0.0%	0.0%	25.1%	25.1%	75.4%	75.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	10	6	1	3	1	2	4	14	18	9	4	0	74
Struck & Lost	0	1	1	0	0	0	1	0	0	1	1	0	2	7
Total Take	2	11	7	1	3	1	3	4	14	19	10	4	2	81
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.4	13.7	6.6	1.3	5.6	1.1	2.2	4.8	17.0	24.3	11.2	8.3	0.0	95.6
Struck & Lost	0.0	1.0	1.1	0.0	0.0	0.0	1.3	0.0	0.0	1.3	1.1	0.0	5.4	11.1
Total Take	2.4	14.7	7.8	1.3	5.6	1.1	3.5	4.0	17.0	25.6	12.3	8.3	5.4	169.8
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.4	13.7	6.0	1.3	5.6	1.1	2.2	4.0	17.0	24.3	11.2	8.3		98.6
Struck & Lost	0.0	1.0	2.1	0.0	0.0	0.0	1.3	0.6	0.6	1.3	1.7	2.4		11.1
Total Take	2.4	14.7	9.9	1.3	5.6	1.1	3.5	5.5	17.6	25.6	12.9	10.6		109.6
Total Take (%)	2.2%	13.4%	8.1%	1.2%	5.1%	1.6%	3.1%	5.0%	16.1%	23.4%	11.6%	9.7%		100.0%
Cum. Take	2.4	17.1	26.0	27.3	32.9	34.0	37.4	42.9	60.5	66.2	99.1	109.8		
Cum. Take (%)	2.2%	15.6%	23.7%	24.9%	30.0%	31.1%	34.1%	39.1%	55.1%	76.5%	90.3%	100.0%		

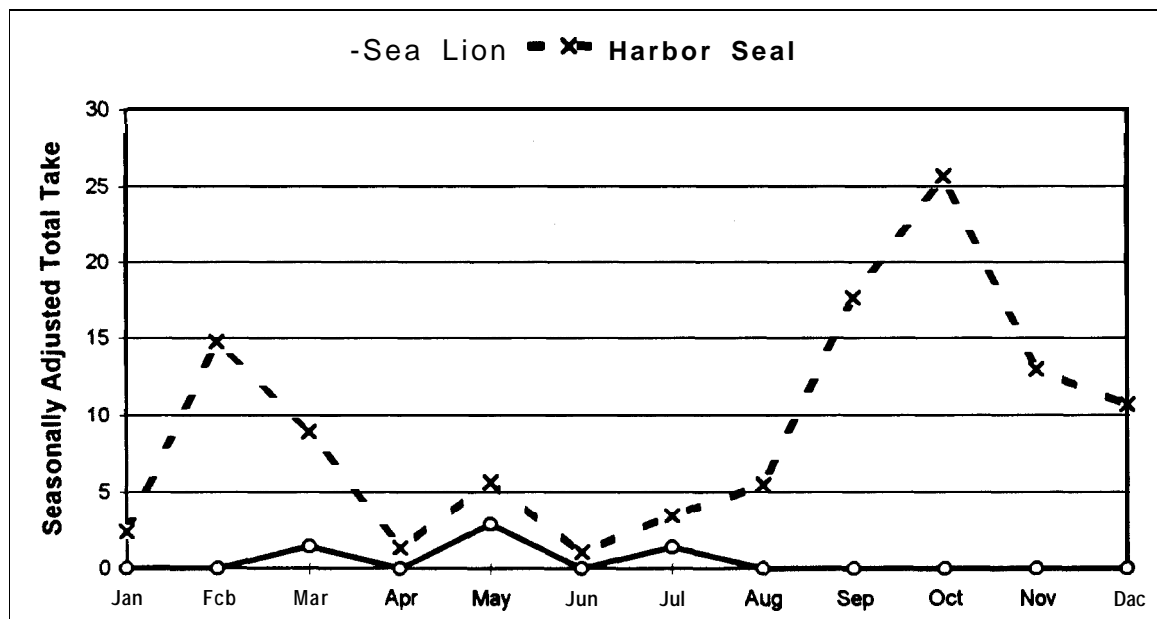
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 5. (cont.) SEA LION AND HARBOR SEAL HARVESTS: SOUTH ALASKA PENINSULA, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	2	50.0%	2.5	53.6%	20	27.0%	26.7	27.1%
Adult Female	2	50.0%	2.2	46.4%	9	12.2%	13.0	13.2%
Adult Unknown Sex	0	0.0%	0.0	0.0%	20	27.0%	24.1	24.4%
Juvenile Male	0	0.0%	0.0	0.0%	5	6.6%	a.3	0.4%
Juvenile Female	0	0.0%	0.0	0.0%	2	2.7%	2.6	2.6%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	a	10.8%	9.9	10.0%
Pup Male	0	0.0%	0.0	0.0%	1	1.4%	1.4	14%
Pup Female	0	0.0%	0.0	0.0%	2	2.7%	2.8	2.9%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	7	9.5%	9.9	10.0%
Total	4	100.0%	4.6	100.0%	74	100.0%	96.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	2.4	0.0	2.4	1992	115.5	13.1	126.6
1993	4.6	1.2	5.7	1993	100.0	23.1	123.1
1994	4.6	1.1	5.7	1994	98.6	11.1	103.8

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lion and Harbor Seals in Alaska

Table 6. SEA LION AND HARBOR SEAL HARVESTS: ALEUTIAN ISLANDS, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	23	149	172
	Surveyed Households	22	108	130
	Sampling Fraction	95.7%	72.5%	75.6%
	Sample Household Members	77	293	370
	Estimated Household Members	80.5	407.6	488.1

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	<u>Sea Lion</u>	<u>Harbor Seal</u>		<u>Sea Lion</u>	<u>Harbor Seal</u>
Used	66.7%	67.3%	Total Number Harvested	101.8	124.9
Hunted	23.1%	26.6%	Total Number Struck and Lost	20.5	22.6
Harvested	16.7%	21.0%	Total Number Taken	122.3	147.5
Received	61.3%	59.4%			
Gave Away	20.5%	24.7%	Number Harvested Per Capita	0.21	0.26

SEA LION HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	9	a	a	14	3	4	4	9	4	9	10	5	7	94
Struck & Lost	0	1	4	4	0	3	0	0	0	1	0	0	6	19
Total Take	9	9	12	18	3	7	4	9	4	10	10	5	13	113
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	9.7	9.2	8.6	15.3	3.2	4.4	4.2	9.8	4.2	9.8	10.6	5.4	7.4	101.8
Struck& Lost	0.0	1.0	4.3	4.2	0.0	3.5	0.0	0.0	0.0	1.0	0.0	0.0	6.5	20.5
Total Take	9.7	10.2	12.8	19.5	3.2	7.9	4.2	9.8	4.2	10.8	10.6	5.4	13.9	122.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	10.4	10.2	9.3	16.1	3.5	4.6	4.7	10.3	4.7	10.5	11.6	5.9		101.8
Struck & Lost	0.0	1.2	a.2	6.5	0.0	3.5	0.0	0.0	0.0	1.2	0.0	0.0		20.5
Total Take	10.4	11.4	17.4	22.6	3.5	8.1	4.7	10.3	4.7	11.7	11.6	5.9		122.3
Total Take (%)	8.5%	9.3%	14.2%	18.5%	2.8%	6.6%	3.8%	8.4%	3.8%	9.6%	9.5%	4.8%		100.0%
Cum Take	10.4	21.8	39.2	61.8	65.2	73.3	78.0	88.3	93.0	104.8	116.4	122.3		
Cum Take (%)	8.5%	17.8%	32.0%	50.5%	53.4%	60.0%	63.8%	72.3%	76.1%	85.7%	95.2%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	4	9	10	18	5	4	6	7	10	7	11	a	17	116
Struck & Lost	1	2	3	2	0	2	1	1	2	1	2	0	4	21
Total Take	5	11	13	20	5	6	7	a	12	8	13	a	21	137
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.4	9.6	10.8	19.3	5.5	4.2	6.4	7.6	10.8	7.6	11.8	a.7	18.3	124.9
Struck& Lost	1.0	2.1	3.2	2.1	0.0	2.3	1.1	1.1	2.2	1.1	2.1	0.0	4.3	22.6
Total Take	5.4	11.7	14.0	21.4	5.5	6.5	7.5	8.7	13.0	0.7	13.9	0.7	22.6	147.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.6	11.2	12.0	22.9	6.5	4.0	7.6	a.9	12.4	8.9	14.0	10.3		124.9
Struck & Lost	1.2	2.3	3.5	2.3	0.0	2.3	1.7	1.7	3.5	1.7	2.3	0.0		22.6
Total Take	5.8	13.5	16.3	25.2	6.5	7.1	9.3	10.6	15.9	10.7	16.3	10.3		147.5
Total Take (%)	3.9%	9.2%	11.0%	17.1%	4.4%	4.8%	6.3%	7.2%	10.8%	7.2%	11.1%	7.0%		100.0%
Cum. Take	5.8	19.3	35.6	60.9	67.4	74.4	83.7	94.3	110.2	120.9	137.2	147.5		
Cum. Take (%)	3.9%	13.1%	24.2%	41.3%	45.7%	50.5%	56.8%	64.0%	74.7%	82.0%	93.0%	100.0%		

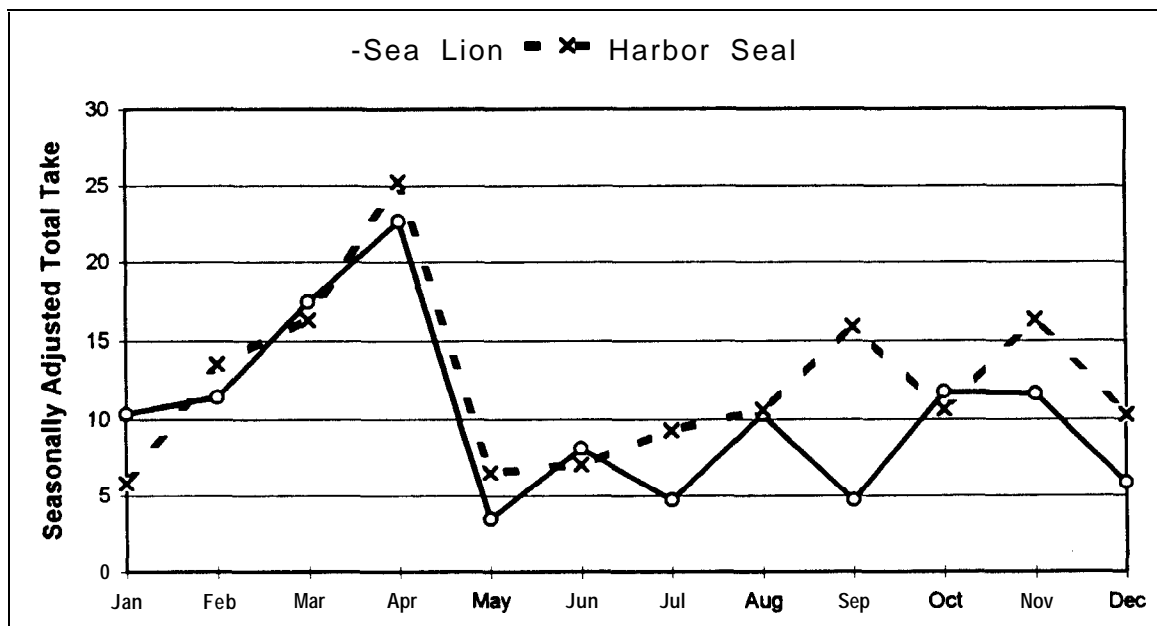
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 6. (cont.) SEA LION AND HARBOR SEAL HARVESTS: ALEUTIAN ISLANDS, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	18	19.1%	20.3	19.9%	21	18.1%	22.9	18.3%
Adult Female	22	23.4%	23.8	23.4%	22	19.0%	23.7	19.0%
Adult Unknown Sex	9	9.6%	9.6	9.4%	17	14.7%	18.1	14.5%
Juvenile Male	30	31.9%	32.2	31.6%	19	16.4%	20.5	16.4%
Juvenile Female	8	8.5%	8.6	8.4%	8	6.9%	8.7	6.9%
Juvenile Unknown Sex	a	4.3%	4.2	4.1%	21	18.1%	22.5	18.0%
Pup Male	1	1.1%	1.0	1.0%	3	2.6%	3.2	2.6%
Pup Female	0	0.0%	0.0	0.0%	1	0.9%	1.1	0.9%
Pup Unknown Sex	0	0.0%	0.0	0.0%	3	2.6%	3.3	2.6%
Male Unknown Age	0	0.0%	0.0	0.0%	1	0.9%	1.0	0.8%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	2	2.1%	2.1	2.1%	0	0.0%	0.0	0.0%
Total	94	100.0%	101.8	100.0%	116	100.0%	124.9	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	104.3	30.9	135.2	1992	94.3	21.4	115.7
1993	99.0	24.6	123.6	1993	85.0	15.4	100.4
1994	101.6	20.5	122.3	1994	124.9	22.6	147.5

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

Table 7. SEA LION AND HARBOR SEAL HARVESTS: PRIBILOF ISLANDS, 1994

SAMPLING DESIGN:		Active	Other	Total
MIXED	Total Native Households	57	149	206
	Surveyed Households	39	67	106
	Sampling Fraction	66.4%	45.0%	51.5%
	Sample Household Members	149	201	350
	Estimated Household Members	217.0	421.8	639.6

HARVEST AND USE INFORMATION

Percentage of Native Households:			Estimated Community Harvest and Take (Expanded):		
Sea Lion	Harbor Seal		Sea Lion	Harbor Seal	
used	59.3%	2.1%	Total Number Harvested	149.8	7.3
Hunted	34.1%	2.1%	Total Number Struck and Lost	43.5	0.0
Harvested	21.4%	2.1%	Total Number Taken	193.3	7.3
Received	48.6%	0.7%			
Gave Away	25.7%	2.1%	Number Harvested Per Capita	0.23	0.01

SEA LION HARVEST BY MONTH														Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	1	5	4	4	16	2	3	0	14	19	17	4	2		91
Struck & Lost	2	5	9	3	0	0	0	0	1	3	3	1	2	2	9
Total Take	3	10	13	7	16	2	3	0	15	22	20	5	4		120
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.5	7.3	5.8	5.8	32.6	2.9	4.4	0.0	26.6	29.3	24.0	5.8	2.9		149.8
Struck & Lost	2.0	7.2	12.9	4.3	0.0	0.0	0.0	0.0	3.0	4.4	4.4	1.5	2.9		43.5
Total Take	4.3	14.5	10.1	10.2	32.6	2.9	4.4	0.0	29.6	33.7	29.2	1.3	5.6		193.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.5	7.5	5.8	6.0	33.3	3.0	4.5	0.0	21.2	29.9		25.4	6.0		149.0
Struck & Lost	2.8	7.8	13.5	4.5	0.0	0.0	0.0	0.0	3.4	4.9		4.9	1.6		43.5
Total Take	4.3	15.2	19.3	10.5	33.3	3.0	4.5	0.0	30.5	34.0		30.3	7.6		193.3
Total Take (%)	2.2%	7.9%	10.0%	5.4%	17.2%	1.5%	2.3%	0.0%	15.8%	18.0%		15.7%	3.9%		100.0%
Cum. Take	4.3	19.6	38.9	49.3	82.6	85.6	90.1	90.1	120.6	155.4		185.7	193.3		
Cum. Take (%)	2.2%	10.1%	20.1%	25.5%	42.7%	44.3%	46.6%	46.6%	62.4%	80.4%		96.1%	100.0%		

HARBOR SEAL HARVEST BY MONTH														Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	0	0	0	1	0	0	0	0	2	1	1	0	0		5
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Total Take	0	0	0	1	0	0	0	0	2	1	1	0	0		5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0	0.0		1.3
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0	0.0		7.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5		0.0			7.3
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0
Total Take	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5		0.0			7.3
Total Take (%)	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	40.0%	20.0%		20.0%			100.0%
Cum. Take	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	4.4	5.8		7.3			
Cum. Take (%)	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	60.0%	80.0%		100.0%			

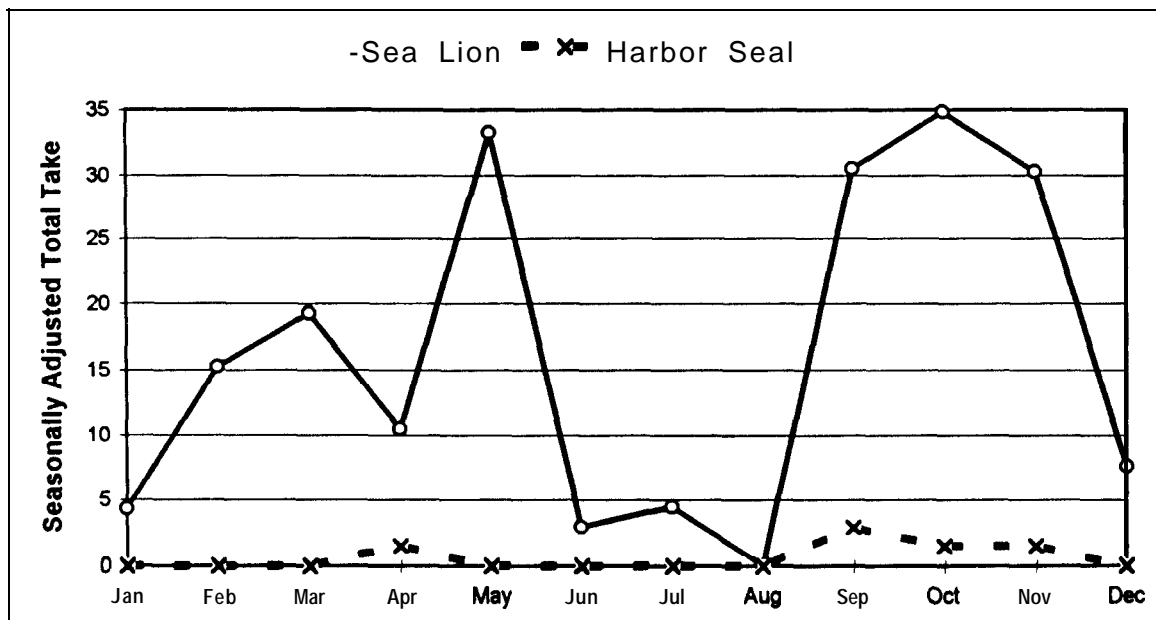
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 7. (cont.) SEA LION AND HARBOR SEAL HARVESTS: PRIBILOF ISLANDS, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	5	5.5%	7.3	4.9%	0	0.0%	0.0	0.0%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Unknown Sex	1	1.1%	1.4	1.0%	0	0.0%	0.0	0.0%
Juvenile Male	81	89.0%	133.7	89.2%	5	100.0%	1.3	100.0%
Juvenile Female	1	1.1%	3.0	2.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	1	1.1%	1.5	1.0%	0	0.0%	0.0	0.0%
Pup Male	2	2.2%	2.9	2.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	91	100.0%	149.8	100.0%	5	100.0%	7.3	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	176.6	120.2	296.6	1992	2.3	1.2	3.5
1993	165.4	60.0	246.4	1993	2.3	1.2	3.5
1994	149.8	43.5	193.3	1994	7.3	0.0	7.3

SOURCE, Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

Table 8. SEA LION AND HARBOR SEAL HARVESTS: SOUTH BRISTOL BAY, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	19	264	263
	Surveyed Households	16	164	200
	Sampling Fraction	64.2%	69.7%	70.7%
	Sample Household Members	63	567	630
	Estimated Household Members	74.8	011.1	886.6

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>		<i>Estimated Community Harvest and Take (Expanded):</i>		<i>Sea Harbor</i>	
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
used	1.1%	40.9%	Total Number Harvested	0.0	121.6
Hunted	0.4%	19.6%	Total Number Struck and Lost	0.0	59.3
Harvested	0.0%	12.0%	Total Number Taken	0.0	180.9
Received	1.1%	29.1%			
Gave Away	0.0%	12.0%	Number Harvested Per Capita	0.00	0.14

SEA LION HARVEST BY MONTH												Unknown		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Cum. Take Take (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take(%)	--	--	--	--	--	--	--	--	--	--	--	--		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	3	20	12	5	12	15	28	4	0	0	0	99
Struck & Lost	0	0	0	2	3	6	11	14	10	2	0	0	0	48
Total Take	0	0	3	22	15	11	23	29	38	6	0	0	0	147
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	3.5	24.3	14.6	6.3	14.9	19.5	33.7	4.8	0.0	0.0	0.0	121.6
Struck & Lost	0.0	0.0	0.0	2.3	3.8	7.5	13.7	17.2	12.6	2.3	0.0	0.0	0.0	59.3
Total Take	0.0	0.0	3.5	26.6	18.4	13.8	28.6	36.7	46.3	7.1	0.0	0.0	0.0	1e0.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	3.5	24.3	14.6	6.3	14.9	19.5	33.7	4.0	0.0	0.0		121.6
Struck & Lost	0.0	0.0	0.0	2.3	3.8	7.5	13.7	17.2	12.6	2.3	0.0	0.0		59.3
Total Take	0.0	0.0	3.5	26.6	10.4	13.8	28.6	36.7	46.3	7.1	0.0	0.0		180.9
Total Take (%)	0.0%	0.0%	1.9%	14.7%	10.2%	7.6%	15.8%	20.3%	25.6%	3.9%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	3.5	30.1	48.4	62.2	90.8	127.5	173.8	180.9	180.9	180.9		
Cum. Take (%)	0.0%	0.0%	1.9%	16.6%	26.8%	34.4%	50.2%	70.5%	96.1%	100.0%	100.0%	100.0%		

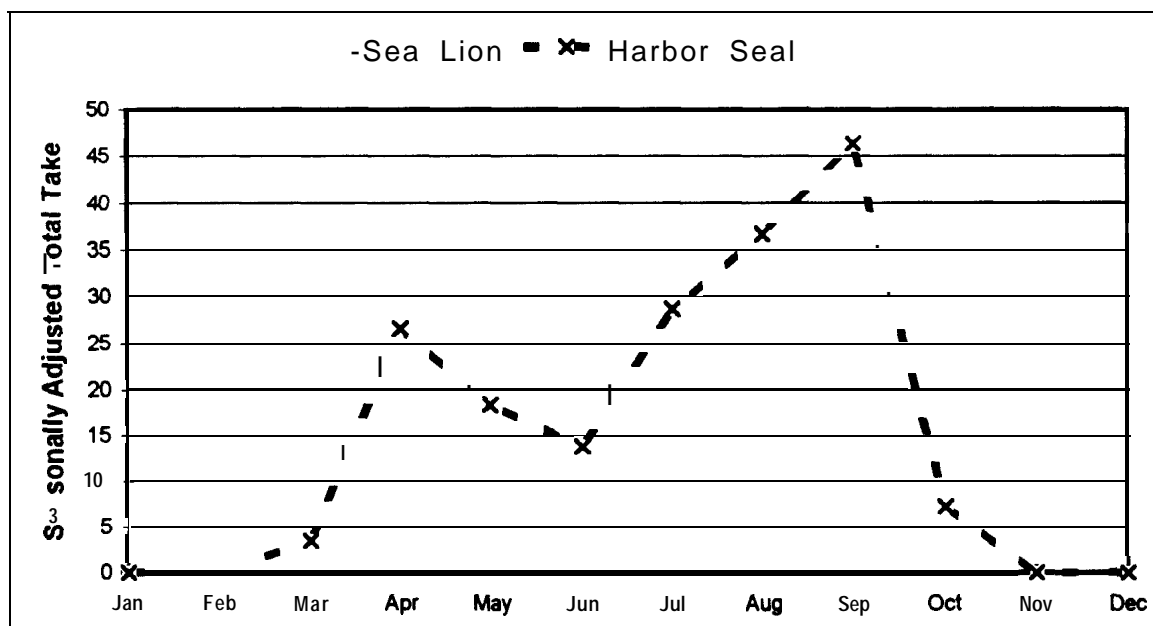
SOURCE. Alaska Department of Fish and Game, Division of Subsistence. Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 8. (cont.) SEA LION AND HARBOR SEAL HARVESTS: SOUTH BRISTOL BAY, 1994

HARVEST BY AGE AND SEX

	<i>sea Lion</i>				<i>Harbor Seal</i>			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	16	16.2%	20.7	17.0%
Adult Female	0	---	0.0	---	6	6.1%	7.2	5.9%
Adult Unknown Sex	0	---	0.0	---	41	41.4%	51.4	42.3%
Juvenile Male	0	---	0.0	---	1	1.0%	11	0.9%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	8	0.1%	9.7	8.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	9	9.1%	10.3	65%
Male Unknown Age	0	---	0.0	---	3	3.0%	3.4	2.6%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	15	15.2%	17.9	14.7%
Total	0	---	0.0	---	99	100.0%	121.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	99.0	66.6	167.6
1993	0.0	0.0	0.0	1993	73.6	57.3	130.9
1994	0.0	0.0	0.0	1994	121.6	59.3	160.9

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 9. SEA LION, HARBOR & SPOTTED SEAL HARVESTS: NORTH BRISTOL BAY, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
<i>MIXED</i>	Total Native Households	76	625	701
	Surveyed Households	70	126	196
	Sampling Fraction	92.1%	20.2%	26.0%
	Sample Household Members	309	488	797
	Estimated Household Members	337.6	2273.2	2610.8

HARVEST AND USE INFORMATION

Percentage of Native Households:

	<u>Sea Lion</u>	<u>Harbor Seal and Spotted Seal</u>
used	7.9%	52.5%
Hunted	1.7%	23.0%
Harvested	0.2%	145%
Received	4.9%	43.9%
Gave Away	2.1%	24.3%

Estimated Community Harvest and Take (Expanded):

	<u>sea Lion</u>	<u>Harbor Seal</u>	<u>spotted Seal</u>
Total Number Harvested	1.2	16.2	226.5
Total Number Struck and Lost	0.0	3.3	42.9
Total Number Taken	1.2	19.5	269.5
Number Harvested Per Capita	0.00	0.01	0.09

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	1	0	0	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.2
Total Take (%)	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR	SEAL AND SPOTTED SEAL HARVEST BY MONTH												Unknown	Total
	spotted Seal					Harbor Seal				Spotted Seal				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	12	18	33	65	7	0	1	0	2	7	4	5	0	154
Struck & Lost	3	6	7	8	0	0	2	0	0	2	1	1	0	30
Total Take	15	24	40	73	7	0	3	0	2	9	5	6	0	184
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	17.7	26.4	46.8	90.6	22.6	0.0	1.0	0.0	15.2	8.4	4.8	9.3	0.0	242.8
Struck & Lost	3.6	10.5	11.7	10.7	0.0	0.0	3.3	0.0	0.0	4.1	1.2	1.2	0.0	46.2
Total Take	21.3	36.9	58.5	101.2	22.6	0.0	4.3	0.0	15.2	12.5	6.0	10.5	0.0	289.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	17.7	26.4	46.8	90.6	22.6	0.0	1.0	0.0	15.2	8.4	4.8	9.3		242.8
Struck & Lost	3.6	10.5	11.7	10.7	0.0	0.0	3.3	0.0	0.0	4.1	1.2	1.2		46.2
Total Take	21.3	36.9	58.5	101.2	22.6	0.0	4.3	0.0	15.2	12.5	6.0	10.5		289.0
Total Take (%)	7.4%	12.8%	20.2%	35.0%	7.8%	0.0%	1.5%	0.0%	5.3%	4.3%	2.1%	3.6%		100.0%
Cum. Take	21.3	58.2	116.7	218.0	240.5	240.5	244.8	244.8	260.1	272.5	278.5	289.0		
Cum. Take (%)	7.4%	20.1%	40.4%	75.4%	83.2%	83.2%	84.7%	84.7%	90.0%	94.3%	96.4%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

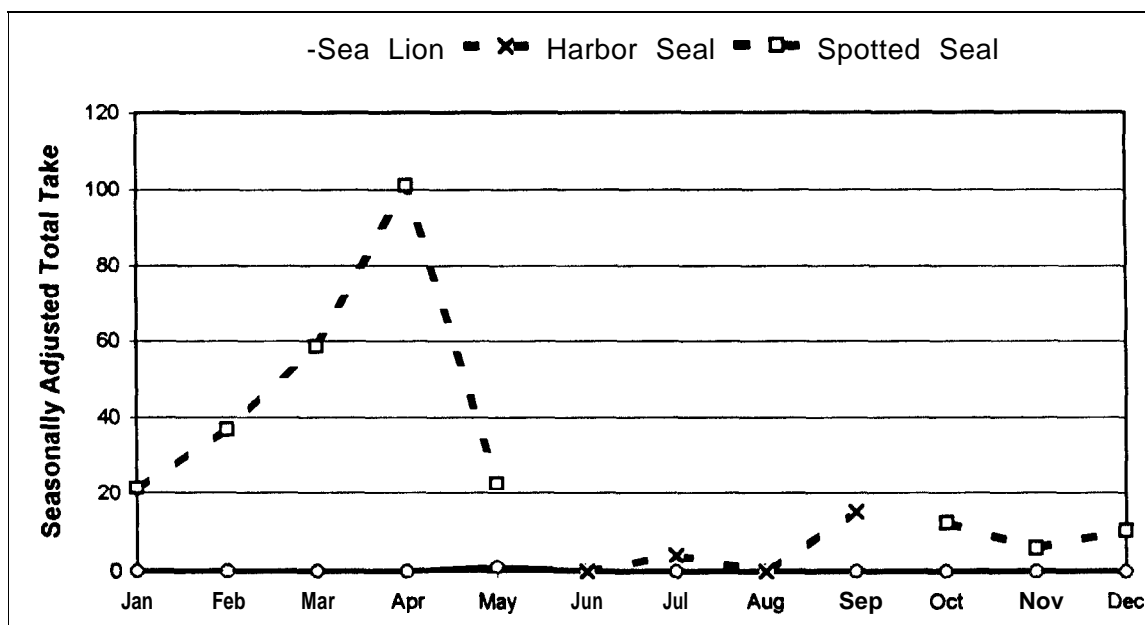
Table 9.(cont) SEA LION, HARBOR & SPOTTED SEAL HARVESTS: NORTH BRISTOL BAY, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal				spotted seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	2	68.7%	15.2	93.8%	27	17.9%	38.1	16.8%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	23	15.2%	28.9	12.7%
Adult Unknown Sex	0	0.0%	0.0	0.0%	1	33.3%	1.0	6.2%	21	13.9%	36.6	16.2%
Juvenile Male	1	100.0%	1.2	100.0%	0	0.0%	0.0	0.0%	21	13.9%	35.0	15.4%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	13	8.6%	18.5	8.2%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	33	21.9%	52.1	23.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	6	4.0%	8.0	3.5%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	1	0.7%	1.2	0.5%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	3	2.0%	4.5	2.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	3	2.0%	3.6	1.6%
Total	1	100.0%	1.2	100.0%	3	100.0%	16.2	100.0%	151	100.0%	226.5	100.0%

• Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL				SPOTTED SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	7.8	0.0	7.8	1992	56.4	13.2	71.6	1992	364.1	72.5	436.8
1993	3.3	3.3	6.5	1993	46.1	20.0	66.1	1993	215.1	49.1	264.1
1994	1.2	0.0	1.2	1994	16.2	3.3	19.5	1994	226.5	42.9	269.5

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

APPENDIX C

SUBSISTENCE TAKES OF HARBOR SEAL AND SEA LION BY COMMUNITY

SOUTHEAST ALASKA

1-2 **Angoon**
3-4 Craig
5-6 Haines
 7-8 Hoonah
 9-10 Hydaburg
 11-12 Juneau
 13-14 Kake
 15-16 Ketchikan
 17-18 Klawock
 19-20 Klukwan
 21-22 Pelican
 23-24 Petersburg
 25-26 **Saxman**
 27-28 Sitka
 29-30 Wrangell
 31-32 Yakutat

NORTH PACIFIC RIM

33-34 Chenega Bay
 35-36 **Cordova**
 37-38 Nanwalek
 39-40 Port Graham
 41-42 Seldovia
 43-44 Seward
 45-46 Tatitlek
 47-48 Valdez

UPPER KENAI-COOK INLET

49-50 Anchorage
 51-52 Homer
 52-52 Kenai

KODIAK ISLAND

53-54 Akhiok
55-56 Karluk
 57-58 Kodiak City
 59-60 Larsen Bay
 61-62 Old Harbor
 63-64 Ouzinkie
 65-66 Port Lions

SOUTH ALASKA PENINSULA

67-68 Chignik Bay
 69-70 Chignik Lagoon
 71-72 Chignik Lake
 73-74 False Pass
 75-76 Ivanof Bay
 77-78 King Cove
 79-80 Perryville
 81-82 Sand Point

ALEUTIAN ISLANDS

83-84 Akutan
 85-86 Atka
 87-88 Nikolski
 89-90 Unalaska

PRIBILOF ISLANDS

91-92 St. George
 93-94 St. Paul

SOUTH BRISTOL BAY

95-96 Egegik
 97-98 King Salmon
 99-100 Levelock
 101-102 Naknek
 103-104 Pilot Point
 105-l 06 Port Heiden
 107-l 08 South Naknek

NORTH BRISTOL BAY

109-i 10 Aleknagik
 111-112 Clark's Point
 113-l 14 Dillingham
 115-l 16 Manokotak
 117-118 Togiak

Table 1. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Angoon, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	46	84	130
	Surveyed Households	44	31	75
	Sampling Fraction	957%	36.9%	57.7%
	Sample Household Members	178	124	302
	Estimated Household Members	186.1	336.0	522.1

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>		<i>Estimated Community Harvest and Take (Expanded):</i>	
	Sea Harbor <u>Lion</u> <u>Seal</u>		Sea Harbor <u>Lion</u> <u>Seal</u>
	used 0.0% 86.5%	Total Number Harvested	0.0 66.9
	Hunted 0.0% 22.3%	Total Number Struck and Lost	0.0 21.1
	Harvested 0.0% 12.9%	Total Number Taken	0.0 89.0
	Received 0.0% 70.8%		
	Gave Away 0.0% 10.9%	Number Harvested Per Capita	0.00 0.13

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	11	6	9	7	2	0	0	1	7	4	1	16	0	64
Struck & Lost	2	0	2	6	0	0	0	1	0	4	0	2	0	17
Total Take	13	6	11	13	2	0	0	2	7	8	1	18	0	81
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	11.5	6.3	9.4	7.3	2.1	0.0	0.0	1.0	7.3	4.2	1.0	16.7	0.0	66.9
Struck & Lost	3.8	0.0	3.0	6.3	0.0	0.0	0.0	1.0	0.0	4.2	0.0	2.1	0.0	21.1
Total Take	15.3	6.3	13.2	13.6	2.1	0.0	0.0	2.1	7.3	8.4	1.0	18.8	0.0	88.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	11.5	6.3	9.4	7.3	2.1	0.0	0.0	1.0	7.3	4.2	1.0	16.7		66.9
Struck & Lost	3.8	0.0	3.8	6.3	0.0	0.0	0.0	1.0	0.0	4.2	0.0	2.1		21.1
Total Take	15.3	6.3	13.2	13.6	2.1	0.0	0.0	2.1	7.3	8.4	1.0	18.8		88.0
Total Take (%)	17.3%	7.1%	15.0%	15.4%	2.4%	0.0%	0.0%	2.4%	8.3%	9.5%	1.2%	21.4%		100.0%
Cum. Take	15.3	21.5	34.7	48.3	50.4	50.4	50.4	52.5	59.8	68.1	69.2	88.0		
Cum Take (%)	17.3%	24.5%	39.4%	54.9%	57.2%	57.2%	57.2%	59.6%	67.9%	77.4%	78.6%	100.0%		

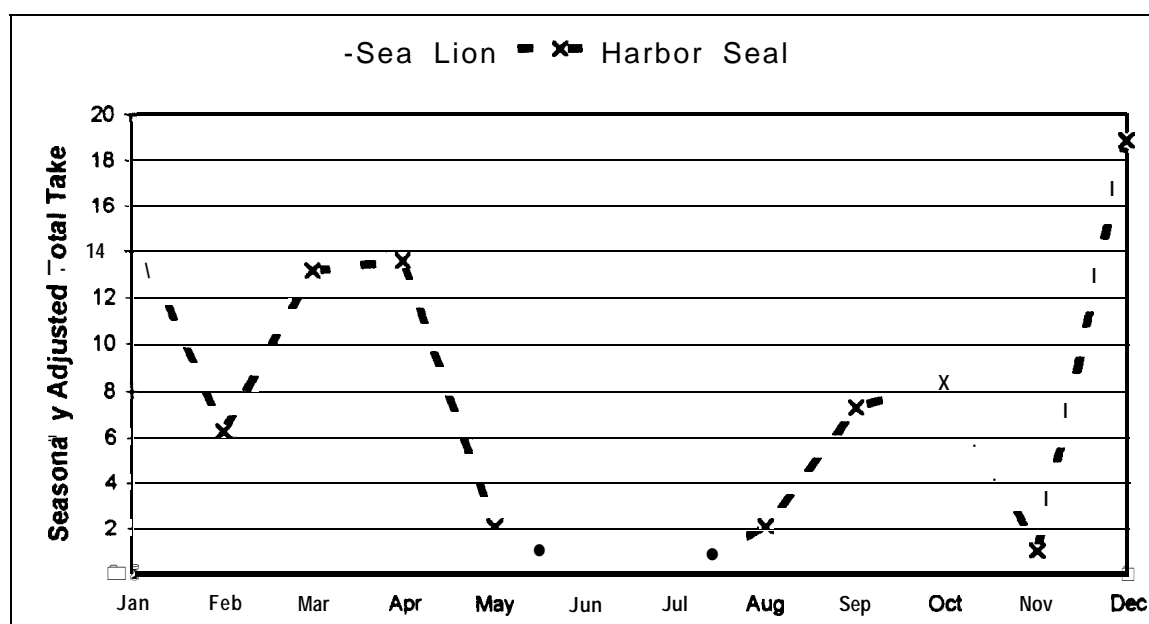
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Angoon, 1994.

Table 1. (cont.) SEA LION 8 HARBOR SEAL HARVEST ESTIMATES: Angoon, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	--	0.0	--	41	64.1%	42.9	64.1%
Adult Female	0	--	0.0	--	8	12.5%	8.4	12.5%
Adult Unknown Sex	0	--	0.0	--	4	6.3%	4.2	6.3%
Juvenile Male	0	--	0.0	--	2	3.1%	2.1	3.1%
Juvenile Female	0	--	0.0	--	3	4.7%	3.1	4.7%
Juvenile Unknown Sex	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Male	0	--	0.0	--	1	1.6%	1.0	1.6%
Pup Female	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	--	0.0	--	0	0.0%	0.0	0.0%
Male Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Female Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	--	0.0	--	5	7.8%	5.2	7.8%
Total	0	--	0.0	--	64	100.0%	66.9	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	126.1	28.9	164.0
1993	0.0	0.0	0.0	1993	66.6	9.9	66.5
1994	0.0	0.0	0.0	1994	66.9	21.1	66.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Angoon, 1994.

Table 2. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Craig, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	23
	Surveyed Households	21
	Sampling Fraction	91.3%
	Sample Household Members	80
	Estimated Household Members	87.6

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>See Harbor</u>	
	<u>Lion</u>	<u>Seal</u>
used	0.0%	100.0%
Hunted	0.0%	52.4%
Harvested	0.0%	52.4%
Received	0.0%	52.4%
Gave Away	0.0%	52.4%

Estimated Community Harvest

and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	42.7
Total Number Struck and Lost	0.0	6.6
Total Number Taken	0.0	49.3

Number Harvested Per Capita WA **N/A**

SEA LION HARVEST <i>BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(x)	---	---	---	---	---	---	---	---	---	---	---	---		---
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take(%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	6	6	8	5	2	1	0	0	1	1	4	5	0	39
Struck & Lost	1	0	1	0	0	0	0	0	1	1	1	1	0	6
Total Take	7	6	9	5	2	1	0	0	2	2	5	6	0	45
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.6	6.6	8.8	5.5	2.2	1.1	0.0	0.0	1.1	1.1	4.4	5.5	0.0	42.7
Struck & Lost	1.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	0.0	6.6
Total Take	7.7	6.6	9.9	5.5	2.2	1.1	0.0	0.0	2.2	2.2	5.5	6.6	0.0	49.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.6	6.6	0.0	5.5	2.2	1.1	0.0	0.0	1.1	1.1	4.4	5.5		42.7
Struck & Lost	1.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1		6.6
Total Take	7.7	6.6	9.9	5.5	2.2	1.1	0.0	0.0	2.2	2.2	5.5	6.6		49.3
Total Take (%)	15.6%	13.3%	20.0%	11.1%	4.4%	2.2%	0.0%	0.0%	4.4%	4.4%	11.1%	13.3%		100.0%
Cum. Take	7.7	14.2	24.1	29.6	31.6	32.9	32.9	32.9	35.0	31.2	42.7	49.3		
Cum. Take(%)	15.6%	28.9%	48.9%	60.6%	64.4%	66.7%	66.7%	66.7%	71.1%	75.6%	86.7%	100.0%		

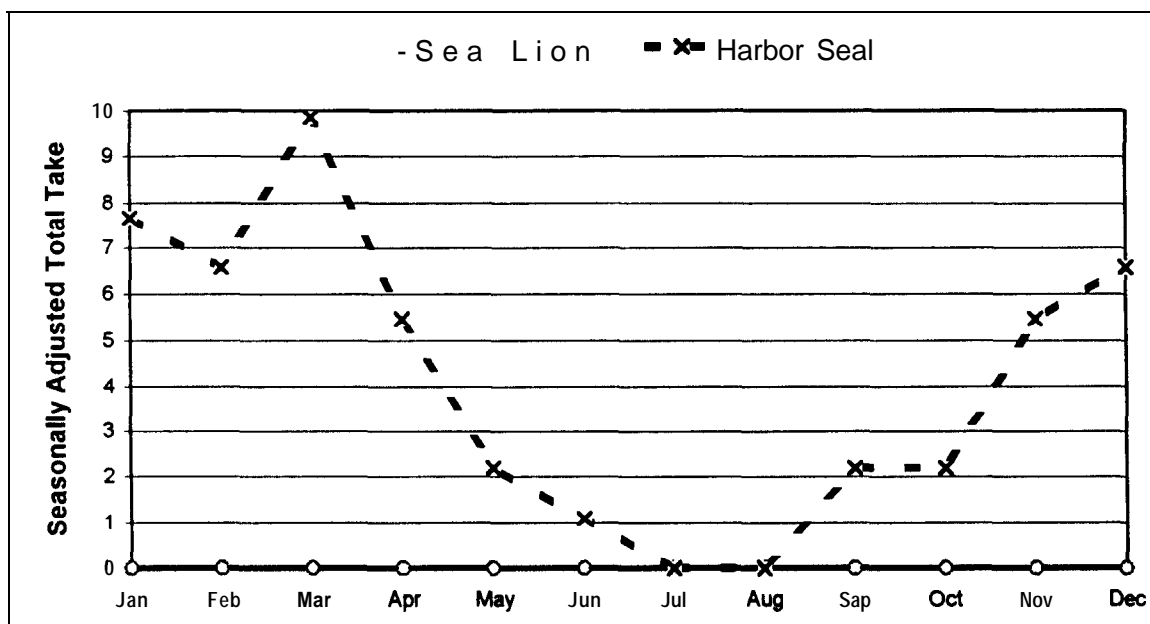
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Craig and Shaan-Seet, Inc., 1994

Table 2. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Craig, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	--	0.0	--	16	41.0%	17.5	41.0%
Adult Female	0	--	0.0	--	11	28.2%	12.0	26.2%
Adult Unknown Sex	0	--	0.0	--	4	10.3%	4.4	10.3%
Juvenile Male	0	--	0.0	--	4	10.3%	4.4	10.3%
Juvenile Female	0	--	0.0	--	3	7.7%	3.3	7.7%
Juvenile Unknown Sex	0	--	0.0	--	1	2.6%	1.1	2.6%
Pup Male	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Female	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	--	0.0	--	0	0.0%	0.0	0.0%
Male Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Female Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Total	0	--	0.0	--	39	100.0%	42.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	74.2	0.0	74.2
1993	0.0	0.0	0.0	1993	51.1	9.8	60.9
1994	0.0	0.0	0.0	1994	42.7	6.6	49.3

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Craig and Shaan-Seet, Inc., 1994.

Table 3. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Haines, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	24
	Surveyed Households	22
	Sampling Fraction	91.7%
	Sample Household Members	82
	Estimated Household Members	69.5

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	Sea Lion	Harbor Seal
Used	0.0%	100.0%
Hunted	0.0%	81.8%
Harvested	0.0%	40.9%
Received	0.0%	95.5%
Gave Away	0.0%	59.1%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	39.3
Total Number Struck and Lost	0.0	2.2
Total Number Taken	0.0	41.5
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH														Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take (%)	--	--	--	--	--	--	--	--	--	--	--	--			--
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Cum Take (%)	--	--	--	--	--	--	--	--	--	--	--	--			--

HARBOR SEAL HARVEST BY MONTH														Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	1	4	7	1	0	1	0	2	0	2	10	8	0	0	36
Struck & Lost	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Total Take	1	4	8	1	0	2	0	2	0	2	10	8	0	0	38
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.1	4.4	7.6	1.1	0.0	1.1	0.0	2.2	0.0	2.2	10.9	8.7	0.0	0.0	39.3
Struck & Lost	0.0	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Total Take	1.1	4.4	8.7	1.1	0.0	2.2	0.0	2.2	0.0	2.2	10.9	8.7	0.0	0.0	41.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.1	4.4	7.6	1.1	0.0	1.1	0.0	2.2	0.0	2.2	10.9	8.7			39.3
Struck & Lost	0.0	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0			2.2
Total Take	1.1	4.4	8.7	1.1	0.0	2.2	0.0	2.2	0.0	2.2	10.9	8.7			41.5
Total Take (%)	2.6%	10.5%	21.1%	2.5%	0.0%	5.3%	0.0%	5.3%	0.0%	5.3%	26.3%	21.1%			100.0%
Cum Take	1.1	5.5	14.2	15.3	15.3	17.5	17.5	19.6	19.6	21.8	32.7	41.5			
Cum Take (%)	2.6%	13.2%	34.2%	36.8%	36.8%	42.1%	42.1%	47.4%	47.4%	52.6%	78.9%	100.0%			

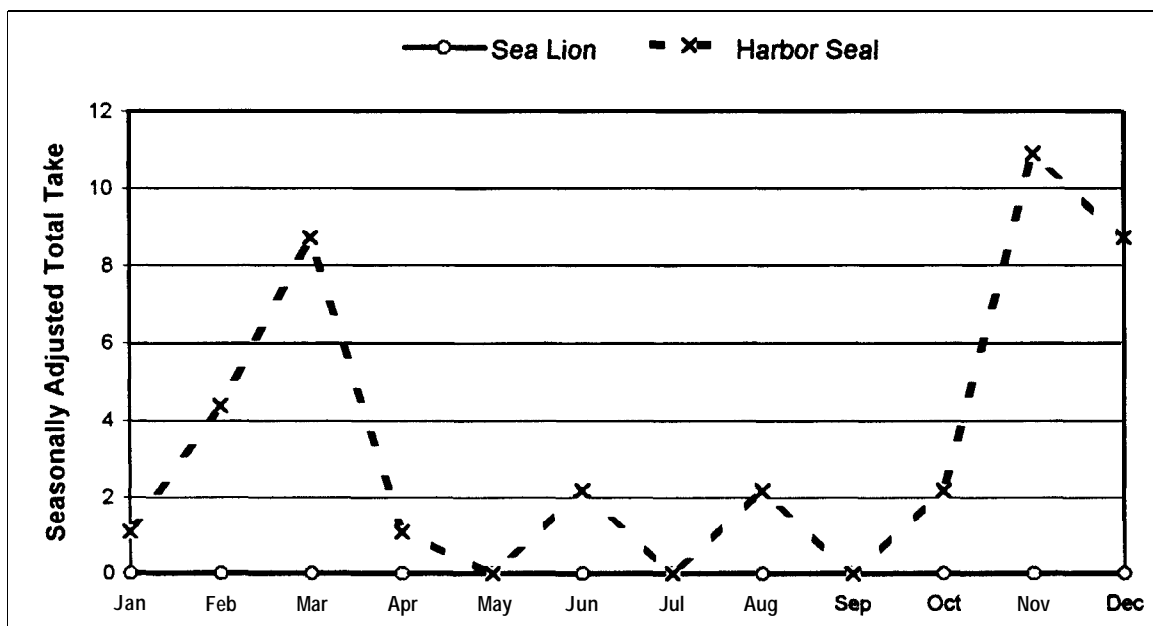
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chilkat Indian Association, 1994.

Table 3. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Haines, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	13	36.1%	14.2	36.1%
Adult Female	0	---	0.0	---	4	11.1%	4.4	11.1%
Adult Unknown Sex	0	---	0.0	---	7	19.4%	7.6	19.4%
Juvenile Male	0	---	0.0	---	6	16.7%	6.5	16.7%
Juvenile Female	0	---	0.0	---	3	0.3%	3.3	0.3%
Juvenile Unknown Sex	0	---	0.0	---	3	0.3%	3.3	0.3%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	36	100.0%	39.3	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	30.5	7.9	38.4
1993	0.0	0.0	0.0	1993	23.0	2.3	25.3
1994	0.0	0.0	0.0	1994	39.3	2.2	41.5

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seats in Alaska, with assistance from the Chilkat Indian Association, 1994.

Table 4. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Hoonah, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	59	144	203
	Surveyed Households	51	33	84
	Sampling Fraction	66.4%	22.9%	41.4%
	Sample Household Members	210	122	332
	Estimated Household Members	242.9	532.4	775.3

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>			
	<u>Sea</u>	<u>Harbor</u>			<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>			<u>Lion</u>	<u>Seal</u>
used	0.0%	72.2%	Total Number	Harvested	0.0	240.7
Hunted	0.0%	28.0%	Total Number	Struck and Lost	0.0	15.0
Harvested	0.0%	20.8%	Total Number	Taken	0.0	255.8
Received	0.0%	56.5%				
Gave Away	0.0%	38.0%	Number Harvested Per Capita		0.00	0.31

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	---	---	---	---	---	---	---	---	---	---	---	---		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Au9	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	16	27	13	19	4	3	10	10	5	22	15	16	37	197
Struck & Lost	2	3	0	3	0	0	0	0	0	0	0	0	5	13
Total Take	18	30	13	22	4	3	10	10	5	22	15	16	42	210
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	21.7	40.9	15.0	22.0	4.6	3.5	11.6	11.6	5.0	25.5	17.4	16.5	42.0	240.7
Struck & Lost	2.3	3.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	15.0
Total Take	24.0	44.3	15.0	25.5	4.6	3.5	11.6	11.6	5.8	25.5	17.4	18.5	48.6	255.8
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	264	49.7	18.3	26.7	5.6	4.2	141	14.1	7.0	31.0	21.1	22.5		240.7
Struck & Lost	3.8	5.6	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		15.0
Total Take	30.2	55.3	18.3	32.4	5.6	4.2	14.1	14.1	7.0	31.0	21.1	22.5		255.8
Total Take (%)	11.8%	21.6%	7.2%	12.7%	2.2%	1.7%	5.5%	5.5%	2.8%	12.1%	8.3%	8.8%		100.0%
Cum Take	30.2	85.5	103.8	136.2	141.8	146.0	160.1	174.2	181.2	212.1	233.3	255.0		
Cum Take(%)	11.8%	334%	40.6%	53.2%	55.4%	57.1%	62.6%	68.1%	70.8%	82.9%	91.2%	100.0%		

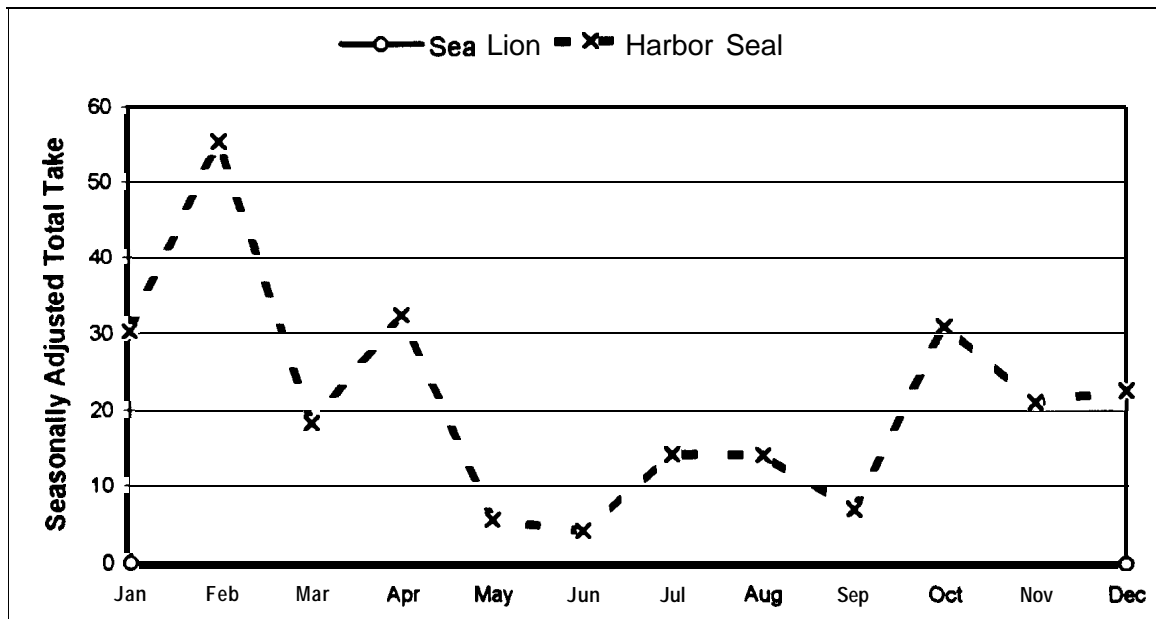
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Hoonah Traditional Council, 1994

Table 4. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Hoonah, 1994

HARVEST BY AGE AND SEX

	SeaLion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	49	24.9%	63.1	26.2%
Adult Female	0	—	0.0	—	29	14.7%	36.0	15.3%
Adult Unknown Sex	0	—	0.0	—	102	51.6%	121.2	50.3%
Juvenile Male	0	—	0.0	—	10	5.1%	11.6	4.0%
Juvenile Female	0	—	0.0	—	5	2.5%	5.8	2.4%
Juvenile Unknown Sex	0	—	0.0	—	2	1.0%	2.3	1.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	197	100.0%	240.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	350.2	24.6	375.0
1993	0.0	0.0	0.0	1993	324.4	35.0	360.2
1994	0.0	0.0	0.0	1994	240.7	15.0	255.8

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Hoonah Traditional Council, 1994.

Table 5. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Hydaburg, 1994

SAMPLING DESIGN:

CHAIN REFERRAL

Total Referred Households	14
Surveyed Households	14
Sampling Fraction	100.0%
Sample Household Members	46
Estimated Household Members	46.0

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
used	0.0%	21.4%
Hunted	0.0%	14.3%
Harvested	0.0%	14.3%
Received	0.0%	14.3%
Gave Away	0.0%	14.3%

Estimated Community Harvest

and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	10.0
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	10.0
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aua	Sep	Dct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(x)	---	---	---	---	---	---	---	---	---	---				
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	---	---	---	---	---	---	---	---	---	---				

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	0	1	0	0	0	0	0	1	2	4	0	0	10
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	2	0	1	0	0	0	0	0	1	2	4	0	0	10
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	4.0	0.0	0.0	10.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	4.0	0.0	0.0	10.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	4.0	0.0		10.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	4.0	0.0		10.0
Total Take (%)	20.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	20.0%	40.0%	0.0%		100.0%
Cum Take	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	6.0	10.0	10.0		
Cum. Take(%)	200%	20.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	40.0%	60.0%	100.0%	100.0%		

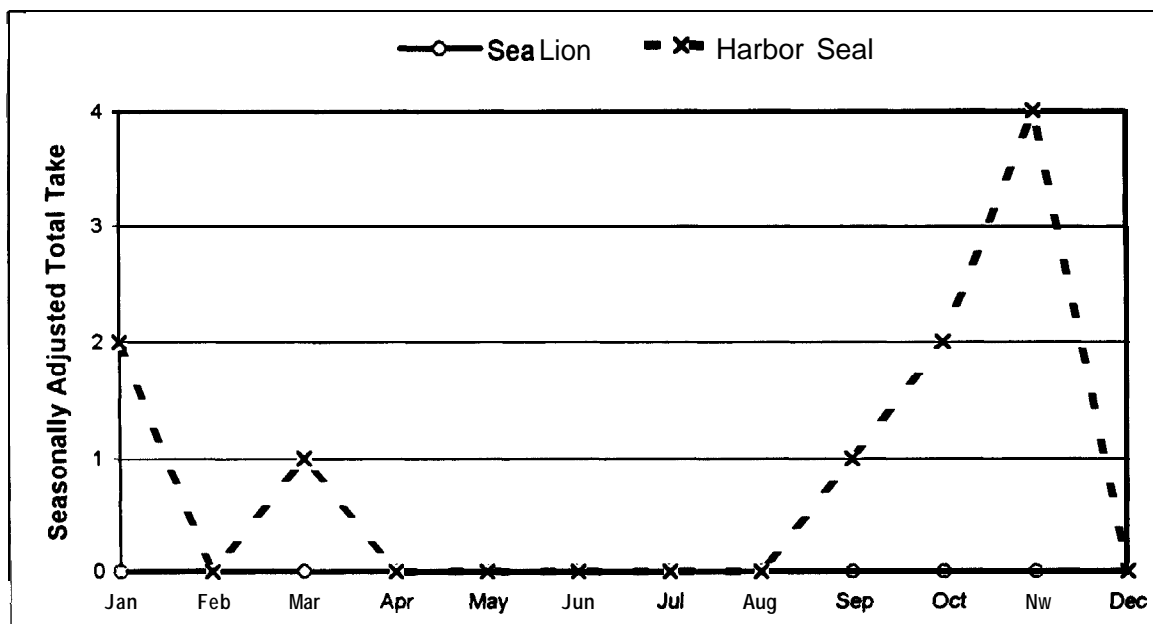
SOURCE: Alaska Department of Fish and Game. Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Hydaburg and Heil Corporation, 1994

Table 5. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Hydaburg, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	7	70.0%	7.0	70.0%
Adult Female	0	—	0.0	—	2	20.0%	2.0	20.0%
Adult Unknown Sex	0	—	0.0	—	1	10.0%	1.0	10.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	10	100.0%	10.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	30.0	2.1	32.1
1993	0.0	0.0	0.0	1993	14.0	0.0	14.0
1994	0.0	0.0	0.0	1994	10.0	0.0	10.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Hydaburg and Haida Corporation, 1994.

Table 6. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Juneau, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	119
	Surveyed Households	106
	Sampling Fraction	69.1%
	Sample Household Members	364
	Estimated Household Members	408.6

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	Sea Lion	Harbor Seal
used	0.9%	72.6%
Hunted	0.9%	29.2%
Harvested	0.9%	21.7%
Received	0.0%	56.6%
Gave Away	0.9%	28.3%

*Estimated Community Harvest
and Take (Expanded):*

	Sea Lion	Harbor seal
Total Number Harvested	1.1	78.6
Total Number Struck and Lost	0.0	13.5
Total Number Taken	1.1	92.1
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	1	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0		1.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0		1.1
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1		
Cum Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	4	3	3	7	0	0	1	10	6	20	4	10	70
Struck & Lost	0	0	0	0	0	0	0	0	0	0	1	0	11	12
Total Take	2	4	3	3	7	0	0	1	10	6	21	4	21	82
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.2	4.5	3.4	3.4	7.9	0.0	0.0	1.1	11.2	6.7	22.5	4.5	11.2	78.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	12.3	13.5
Total Take	2.2	4.5	3.4	3.4	7.9	0.0	0.0	1.1	11.2	6.7	23.6	4.5	23.6	92.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.6	5.2	3.9	3.9	9.2	0.0	0.0	1.3	13.1	7.9	26.2	5.2		78.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0		13.5
Total Take	2.6	5.2	3.9	3.9	9.2	0.0	0.0	1.3	13.1	7.9	39.7	5.2		92.1
Total Take (%)	2.8%	5.1%	4.3%	4.3%	10.0%	0.0%	0.0%	1.4%	14.2%	8.5%	43.1%	5.7%		100.0%
Cum Take	2.6	7.9	11.8	15.7	24.9	24.9	24.9	26.2	39.3	47.2	86.8	92.1		
Cum Take (%)	2.8%	8.5%	12.8%	17.1%	27.0%	27.6%	27.0%	28.5%	42.7%	51.2%	94.3%	100.0%		

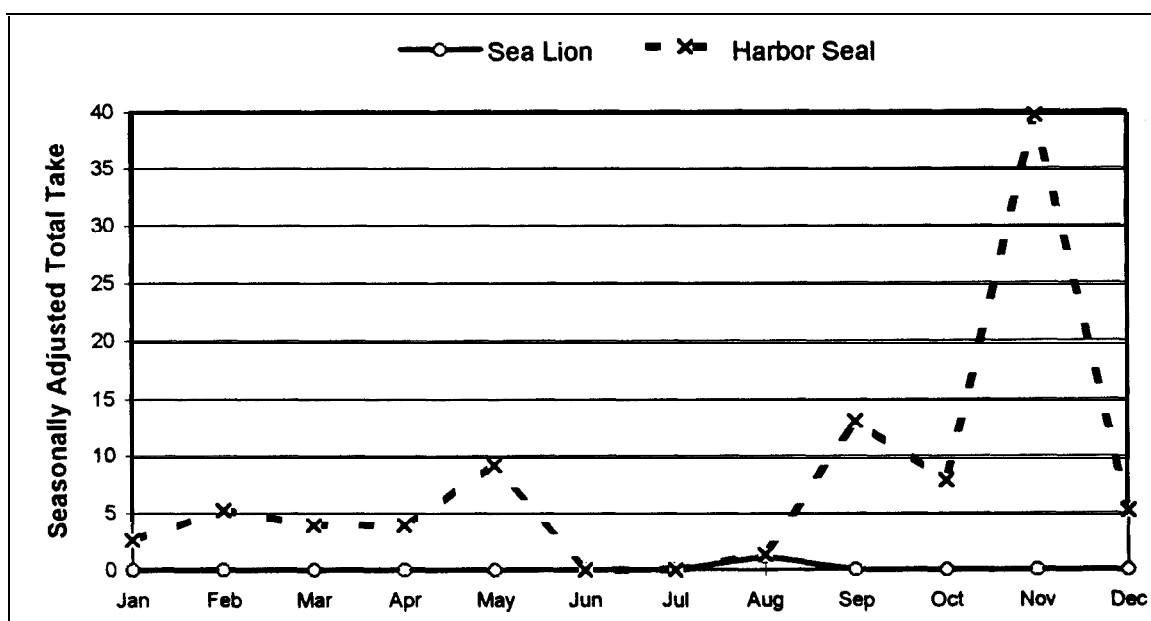
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Tlingit and Haida Central Council, Sealaska, Aleutian Council, and ANB/ANS, 1994.

Table 6. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Juneau, 1994

HARVEST BY AGE AND SEX

	sea Lion				HarborSeal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	100.0%	1.1	100.0%	38	51.4%	40.4	51.4%
Adult Female	0	0.0%	0.0	0.0%	12	17.1%	13.5	17.1%
Adult Unknown Sex	0	0.0%	0.0	0.0%	9	12.9%	10.1	12.9%
Juvenile Male	0	0.0%	0.0	0.0%	2	2.9%	2.2	2.9%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	11	15.7%	12.3	15.7%
Total	1	100.0%	1.1	100.0%	70	100.0%	78.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	122.6	7.6	130.2
1993	0.0	0.0	0.0	1993	59.0	21.6	60.6
1994	1.1	0.0	1.1	1994	76.6	13.5	92.1

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Tlingit and Haida Central Council, Sealaska, Aleutian Council, and ANB/ANS, 1994.

Table 7. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Kake, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	76	105	181
	Surveyed Households	62	30	92
	Sampling Fraction	81.6%	28.6%	50.8%
	Sample Household Members	242	84	326
	Estimated Household Members	296.6	294.0	590.6

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	<u>Sea</u>	<u>Harbor</u>		<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
Used	2.6%	81.7%	Total Number Harvested	1.2	99.3
Hunted	0.7%	19.6%	Total Number Struck and Lost	0.0	7.4
Harvested	0.7%	156%	Total Number Taken	1.2	106.6
Received	1.9%	57.6%			
Gave Away	0.7%	13.4%	Number Harvested Per Capita	0.00	0.17

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	h month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	1	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0		1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0		1.2
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH														Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	3	4	6	6	2	2	0	1	3	26	14	7	5	81	
Struck & Lost	0	0	0	0	0	0	0	0	0	0	1	0	5	6	
Total Take	3	4	6	6	2	2	0	1	3	28	15	7	10	87	
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	3.7	4.9	9.8	7.4	2.5	2.5	0.0	1.2	3.7	31.9	17.2	8.6	6.1	99.3	
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	6.1	7.4	
Total Take	3.7	4.9	9.8	7.4	2.5	2.5	0.0	1.2	3.7	31.9	18.4	8.6	12.3	166.6	
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	3.9	5.2	10.5	7.8	2.6	2.6	0.0	1.3	3.9	34.0	18.3	9.1		99.3	
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0		7.4	
Total Take	3.9	5.2	10.5	7.8	2.6	2.6	0.0	1.3	3.9	34.0	25.6	9.1		106.6	
Total Take (%)	3.7%	4.9%	9.8%	7.4%	2.5%	2.5%	0.0%	1.2%	3.7%	31.9%	24.0%	8.6%		100.0%	
Cum Take	3.9	9.1	19.6	27.4	30.0	32.7	32.7	34.0	37.9	71.9	97.5	106.6			
Cum Take(%)	37%	8.6%	18.4%	25.7%	28.2%	30.6%	30.6%	31.9%	35.5%	67.4%	91.4%	100.0%			

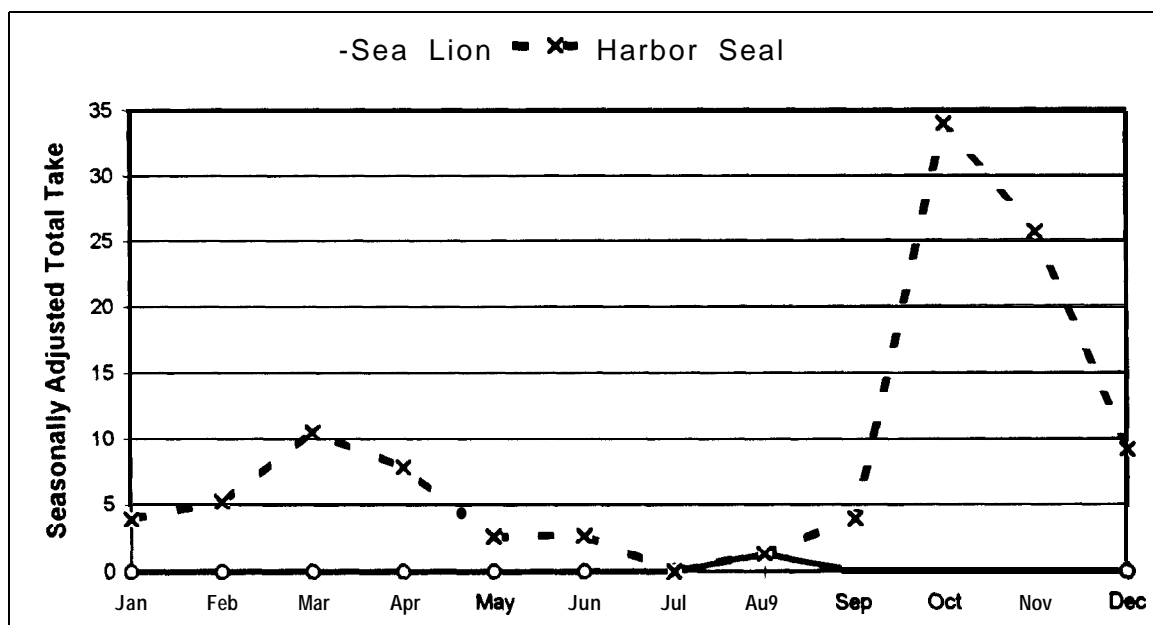
SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Organized Village of Kake and City of Kake, 1994

Table 7. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Kake, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	100.0%	1.2	100.0%	49	60.5%	60.1	60.5%
Adult Female	0	0.0%	0.0	0.0%	3	3.7%	3.7	3.7%
Adult Unknown Sex	0	0.0%	0.0	0.0%	13	16.0%	15.9	16.0%
Juvenile Male	0	0.0%	0.0	0.0%	7	6.6%	8.6	6.6%
Juvenile Female	0	0.0%	0.0	0.0%	1	1.2%	1.2	1.2%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	2	2.5%	2.5	2.5%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	1	1.2%	1.2	1.2%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	5	6.2%	6.1	6.2%
Total	1	100.0%	1.2	100.0%	61	100.0%	99.3	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	173.9	12.3	166.2
1993	0.0	0.0	0.0	1993	100.6	15.2	115.9
1994	1.2	0.0	1.2	1994	99.3	7.4	106.6

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Organized Village of Kake and Cii of Kake, 1994.

Table 8. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Ketchikan, 1994**SAMPLING DESIGN:****CHAIN REFERRAL**

Total Referred Households	20
Surveyed Households	14
Sampling Fraction	70.0%
Sample Household Members	42
Estimated Household Members	60.0

HARVEST AND USE INFORMATION**Percentage of Sample Households:**

	Sea Lion	Harbor Seal
used	0.0%	05.7%
Hunted	0.0%	21.4%
Harvested	0.0%	14.3%
Received	0.0%	21.4%
Gave Away	0.0%	21.4%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor seal
Total Number Harvested	0.0	31.4
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	31.4
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown Dec Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(x)	---	---	---	---	---	---	---	---	---	---	---	---		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		
HARBOR SEAL HARVEST BY MONTH													Unknown Dec Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Ckt	Nw			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	3	3	3	7	0	1	0	0	0	0	1	4	0	22
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	3	3	3	7	0	1	0	0	0	0	1	4	0	22
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.3	4.3	4.3	10.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	5.7	0.0	31.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	4.3	4.3	4.3	10.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	5.7	0.0	31.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.3	4.3	4.3	10.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	5.7		31.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	4.3	4.3	4.3	10.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	5.7		31.4
Total Take (%)	13.6%	13.6%	13.6%	31.6%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	4.5%	10.2%		100.0%
Cum Take	4.3	6.6	12.9	22.9	22.9	24.3	24.3	24.3	24.3	24.3	25.7	31.4		
Cum Take(%)	13.6%	27.3%	46.9%	72.7%	72.7%	77.3%	77.3%	77.3%	77.3%	77.3%	81.8%	100.0%		

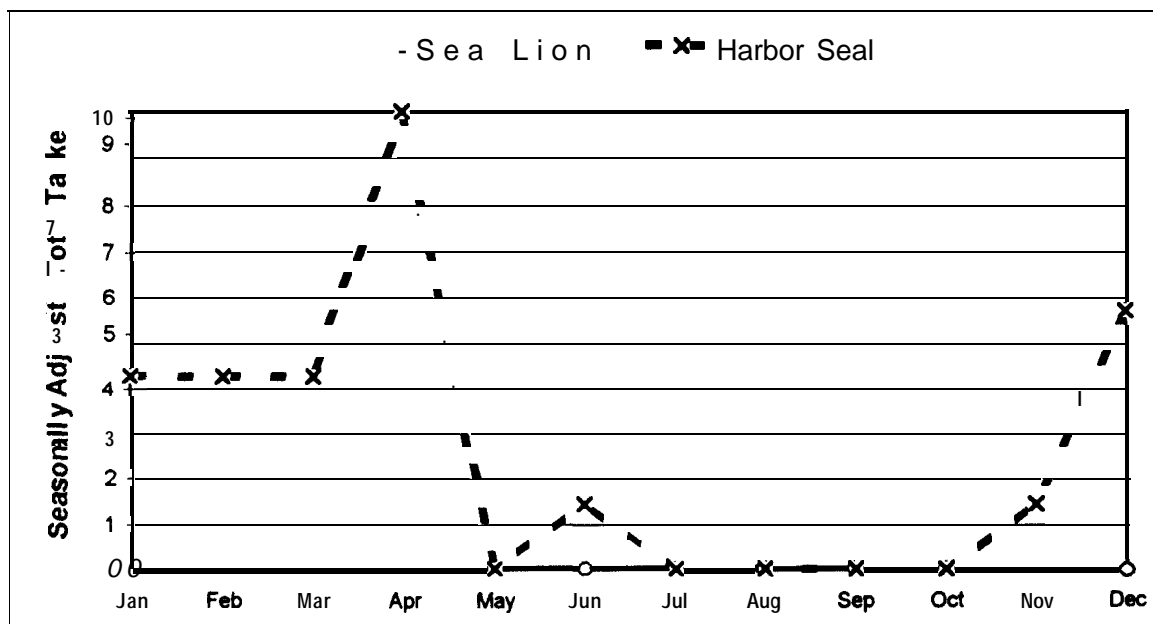
SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Ketchikan IRA Council and Ketchikan Indian Corporation, 1994.

Table 8. (cont.) SEA LION 8 HARBOR SEAL HARVEST ESTIMATES: Ketchikan, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	lb	Number	%
Adult Male	0	—	0.0	—	11	50.0%	15.7	50.0%
Adult Female	0	—	0.0	—	11	50.0%	15.1	50.0%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	22	100.0%	31.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	90.2	6.5	96.8
1993	0.0	0.0	0.0	1993	42.4	2.9	45.3
1994	0.0	0.0	0.0	1994	31.4	0.0	31.4

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seats in Alaska, with assistance from the Ketchikan IRA Council and Ketchikan Indian Corporation, 1994.

Table 9. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Klawock, 1994

SAMPLING DESIGN:

<i>CHAIN REFERRAL</i>	Total Referred Households	33
	Surveyed Households	26
	Sampling Fraction	70.6%
	Sample Household Members	103
	Estimated Household Members	130.7

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
used	0.0%	76.9%
Hunted	0.0%	61.5%
Harvested	0.0%	28.9%
Received	0.0%	23.1%
Gave Away	0.0%	34.8%

Estimated Community Harvest and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>seal</u>
Total Number Harvested	0.0	71.1
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	71.1
Number Harvested Par Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total	Take(x)	---	---	---	---	---	---	---	---	---	---	---	---	
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum	Take	(%)	---	---	---	---	---	---	---	---	---	---	---	

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	24	6	2	1	0	0	0	0	0	0	7	16	0	56
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	24	6	2	1	0	0	0	0	0	0	7	16	0	56
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	a.9	20.3	0.0	71.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	8.9	20.3	0.0	71.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	8.9	20.3		71.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.9	20.3		71.1
Total Take (%)	42.9%	10.7%	3.6%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	20.6%		100.0%
Cum. Take	30.5	361	40.6	41.9	41.9	41.9	41.9	41.9	41.9	41.9	50.0	71.1		
Cum.Take(%)	42.9%	536%	57.1%	56.9%	569%	56.9%	569%	56.9%	56.9%	56.9%	714%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	24	6	2	1	0	0	0	0	0	0	7	16	0	56
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	24	6	2	1	0	0	0	0	0	0	7	16	0	56
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	a.9	20.3	0.0	71.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	8.9	20.3	0.0	71.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	8.9	20.3		71.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	30.5	7.6	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.9	20.3		71.1
Total Take (%)	42.9%	10.7%	3.6%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	20.6%		100.0%
Cum. Take	30.5	36.1	40.6	41.9	41.9	41.9	41.9	41.9	41.9	41.9	50.0	71.1		
Cum.Take(%)	42.9%	53.6%	57.1%	56.9%	56.9%	56.9%	56.9%	56.9%	56.9%	56.9%	71.4%	100.0%		

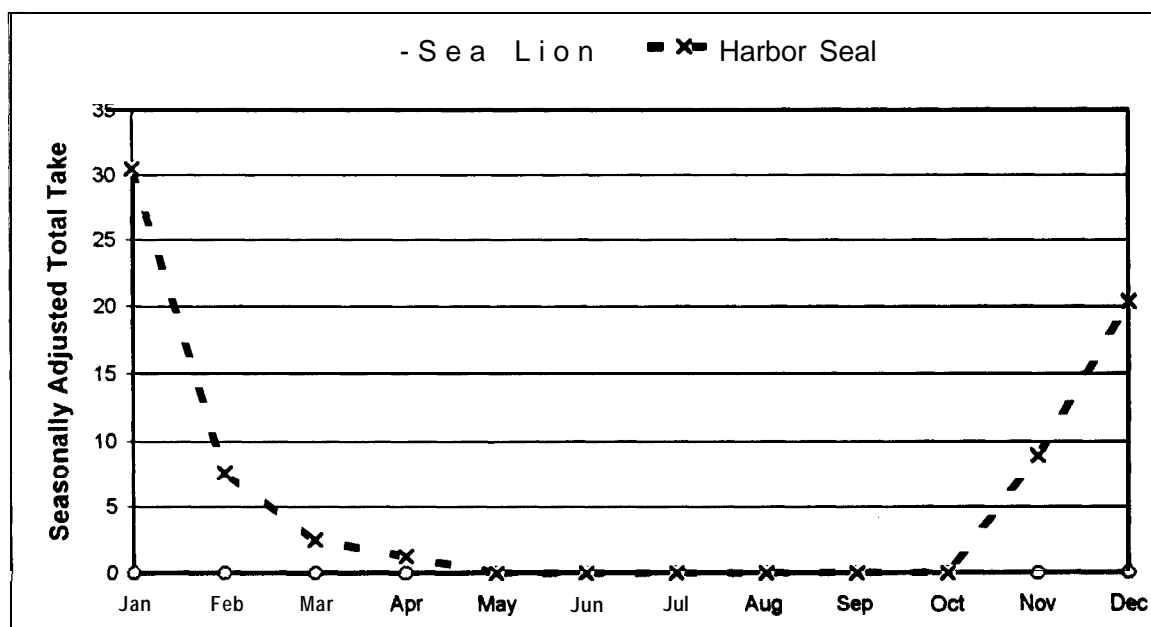
SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Klawock Cooperative Association and Klawock Heenya Corporation, 1994.

Table 9. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Klawock, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	41	73.2%	52.0	73.2%
Adult Female	0	---	0.0	---	11	19.6%	14.0	19.6%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	4	7.1%	5.1	7.1%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	56	100.0%	71.1	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	1.4	0.0	1.4	1992	39.0	1.4	40.3
1993	0.0	0.0	0.0	1993	39.8	0.0	39.8
1994	0.0	0.0	0.0	1994	71.1	0.0	71.1

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lion and Harbor Seal in Alaska, with assistance from the Klawock Cooperative Association and Klawock Heenya Corporation, 1994.

Table IO. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Klukwan, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	10
	Surveyed Households	8
	Sampling Fraction	80.0%
	Sample Household Members	41
	Estimated Household Members	51.3

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
used	0.0%	75.0%
Hunted	0.0%	25.0%
Harvested	0.0%	25.0%
Received	0.0%	25.0%
Gave Away	0.0%	25.0%

Estimated Community Harvest and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	3.8
Total Number Struck and Lost	0.0	1.3
Total Number Taken	0.0	5.0
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		---
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		---

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	2	0	0	0	0	0	0	0	0	1	3
Struck & Lost	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total Take	0	0	0	3	0	0	0	0	0	0	0	0	1	4
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.0
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Take	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	5.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		3.8
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.3
Total Take	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		5.0
Total Take (%)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
Cum Take (%)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

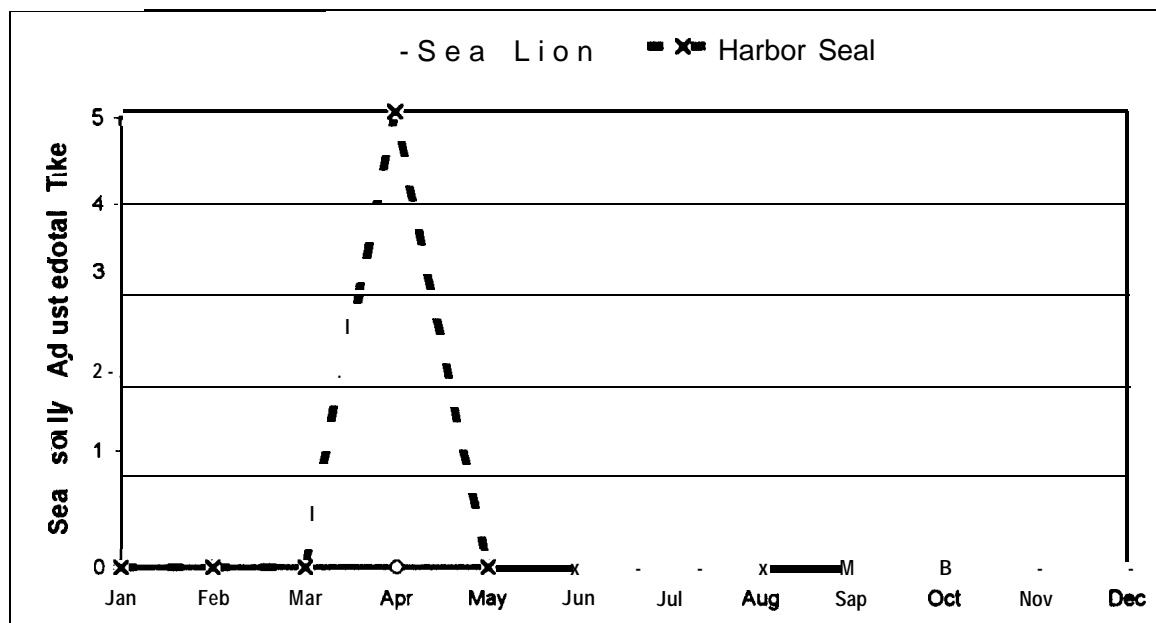
SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Chilkat Indian Village, 1994.

Table 10. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Klukwan, 1994

HARVEST BY AGE AND SEX

	sea Lion				Harbor Seal			
	Reported by Sample		Community Est (Expanded)		Reported by Sample		Community Est (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	2	88.7%	2.5	88.7%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	1	33.3%	1.3	33.3%
Total	0	---	0.0	---	3	100.0%	3.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	8.0	2.0	10.0
1993	0.0	0.0	0.0	1993	1.2	0.0	1.2
1994	0.0	0.0	0.0	1994	3.8	1.3	5.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lion and Harbor Seal in Alaska, with assistance from the Chitkat Indian Village, 1994.

Table 11. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Pelican, 1994

SAMPLING DESIGN:

<i>CHAIN REFERRAL</i>	Total Referred Households	20
	Surveyed Households	18
	Sampling Fraction	90.0%
	Sample Household Members	56
	Estimated Household Members	62.2

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	Sea	Harbor
	<u>Lion</u>	<u>Seal</u>
used	0.0%	50.0%
Hunted	0.0%	27.8%
Harvested	0.0%	22.2%
Received	0.0%	27.8%
Gave Away	0.0%	0.0%

Estimated Community Harvest and Take (Expanded):

	Sea	Harbor
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	4.4
Total Number Struck and Lost	0.0	1.1
Total Number Taken	0.0	5.6
Number Harvested Per Capita	NA	NA

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---		---		---
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	---	---	---	---	---	---	---	---	---	---				

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	1	1	0	0	1	0	1	0	4
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Take	0	0	0	0	0	1	1	0	0	1	0	2	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	0.0	1.1	0.0	4.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1
Total Take	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	0.0	2.2	0.0	5.6
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	0.0	1.1	0.0	4.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1
Total Take	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	0.0	2.2	0.0	5.6
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	0.0%	0.0%	20.0%	0.0%	40.0%	0.0%	100.0%
Cum Take	0.0	0.0	0.0	0.0	0.0	1.1	2.2	2.2	2.2	3.3	3.3	5.6	5.6	5.6
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	40.0%	40.0%	40.0%	60.0%	60.0%	100.0%	100.0%	100.0%

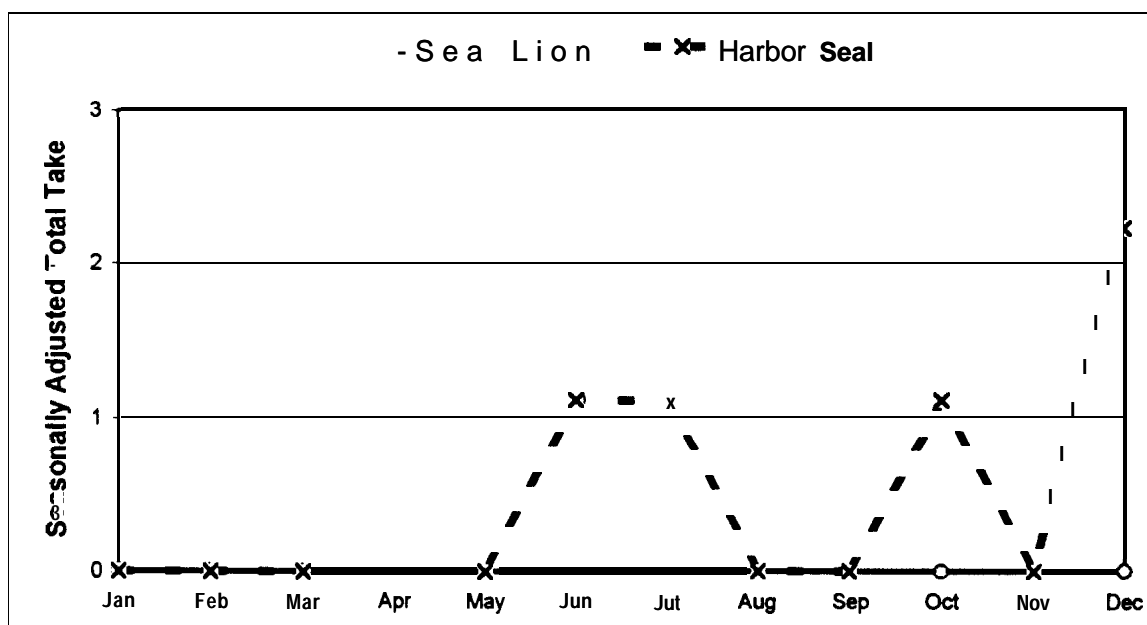
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Pelican, Tlingit and Haida Indians of Pelican Community Council, 1994.

Table 11. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Pelican, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	3	75.0%	3.3	75.0%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	1	25.0%	1.1	25.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	4	100.0%	4.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	8.3	1.4	9.7
1993	0.0	0.0	0.0	1993	5.3	1.1	6.4
1994	0.0	0.0	0.0	1994	4.4	1.1	5.6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lion and Harbor Seals in Alaska, with assistance from the City of Pelican, Tlingit and Haida Indians of Pelican Community Council, 1994.

Table 12. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Petersburg, 1994

SAMPLING DESIGN:

<i>CHAIN REFERRAL</i>	Total Referred Households	24
	Surveyed Households	19
	Sampling Fraction	79.2%
	Sample Household Members	53
	Estimated Household Members	66.9

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
used	0.0%	947%
Hunted	0.0%	15.8%
Harvested	0.0%	10.5%
Received	0.0%	89.5%
Gave Away	0.0%	21.1%

Estimated Community Harvest and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	15.2
Total Number Struck and Lost	0.0	1.3
Total Number Taken	0.0	16.4
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	0	0	9	0	0	0	0	0	1	1	0	0	12
Struck & Lost	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total Take	1	0	0	10	0	0	0	0	0	1	1	0	0	13
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	15.2
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Take	1.3	0.0	0.0	12.6	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	16.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0		15.2
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.3
Total Take	1.3	0.0	0.0	12.6	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0		16.4
Total Take (%)	7.7%	0.0%	0.0%	76.9%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	7.7%	0.0%		100.0%
Cum. Take	1.3	1.3	1.3	13.9	13.9	13.9	13.9	13.9	13.9	15.2	16.4	16.4		
Cum. Take (%)	7.7%	7.7%	7.7%	84.6%	84.6%	84.6%	84.6%	84.6%	84.6%	92.3%	100.0%	100.0%		

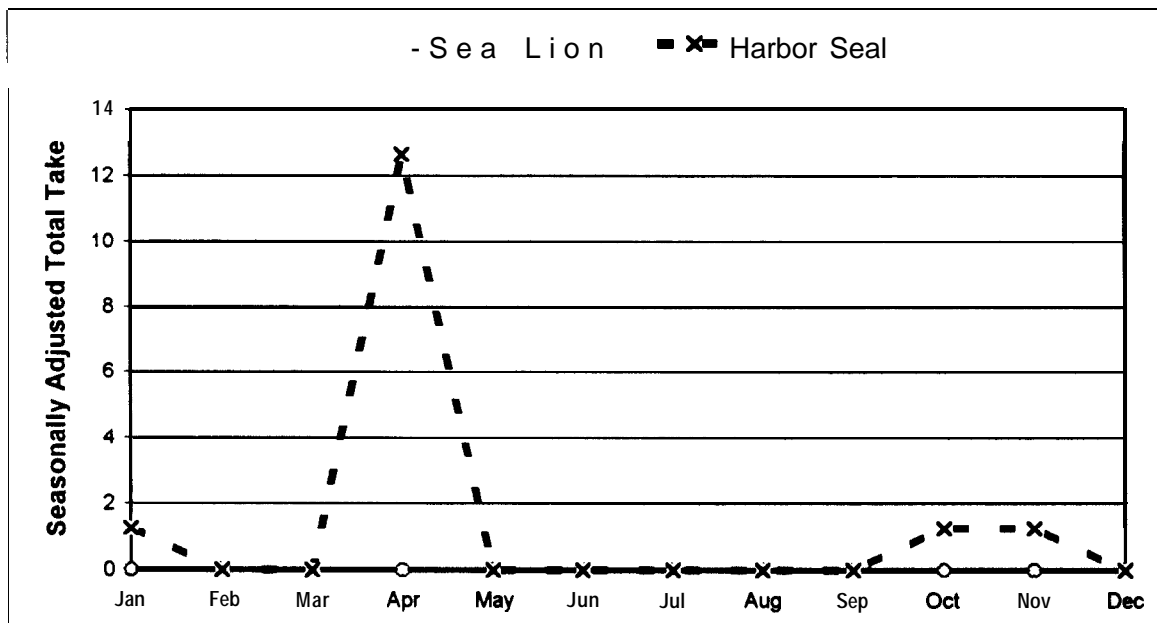
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Petersburg Indian Association, 1994.

Table 12. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Petersburg, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	5	41.7%	6.3	41.7%
Adult Female	0	—	0.0	—	4	33.3%	5.1	33.3%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	3	25.0%	3.8	25.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	12	100.0%	15.2	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	0.0	0.0	0.0	1992	22.4	2.6	25.0
1993	0.0	0.0	0.0	1993	4.5	4.5	9.0
1994	0.0	0.0	0.0	1994	15.2	1.3	16.4

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Petersburg Indian Association, 1994.

Table 13. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Saxman, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	19
	Surveyed Households	15
	Sampling Fraction	78.9%
	Sample Household Members	66
	Estimated Household Members	86.1

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	Sea Lion	Harbor Seal
used	0.0%	80.0%
Hunted	0.0%	33.3%
Harvested	0.0%	267%
Received	0.0%	60.0%
Gave Away	0.0%	60.0%

*Estimated Community Harvest
and Take (Expanded):*

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	16.5
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	16.5

Number Harvested Per Capita N/A N/A

SEA LION HARVEST BY MONTH													Unknown Dec Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)		—	—	—	—	—	—	—	—	—	—	—		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)		—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH													Unknown Dec Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	3	6	1	0	0	0	0	3	0	0	0	0	13
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	3	6	1	0	0	0	0	3	0	0	0	0	13
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	3.8	7.6	1.3	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	16.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	3.8	7.6	1.3	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	16.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	3.8	7.6	1.3	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0		16.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	3.8	7.6	1.3	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0		16.5
Total Take (%)	0.0%	23.1%	46.2%	7.7%	0.0%	0.0%	0.0%	0.0%	23.1%	0.0%	0.0%	0.0%		100.0%
Cum Take	0.0	3.8	11.4	12.7	12.7	12.7	12.7	12.7	16.5	16.5	16.5	16.5		
Cum Take (%)	0.0%	23.1%	69.2%	76.9%	76.9%	76.9%	76.9%	76.9%	100.0%	100.0%	100.0%	100.0%		

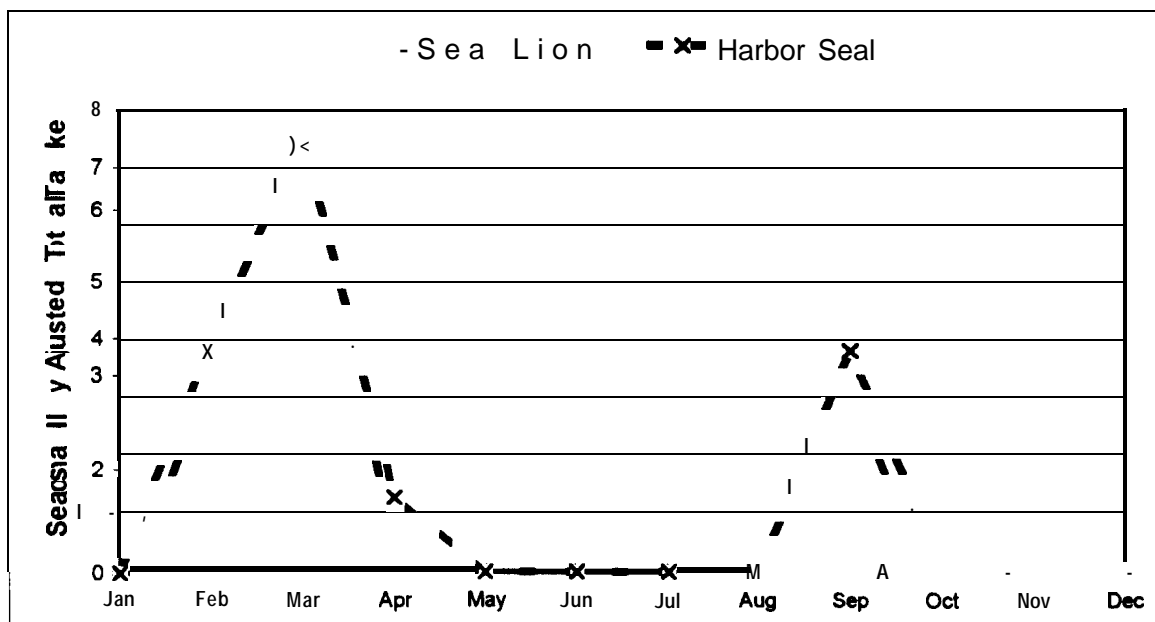
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Saxman and Saxman IRA Council, 1994.

Table 13. (cont.) SEA LION 8 HARBOR SEAL HARVEST ESTIMATES: Saxman, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	9	69.2%	11.4	69.2%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	4	30.8%	5.1	30.8%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	13	100.0%	16.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	22.2	1.2	23.5
1993	0.0	0.0	0.0	1993	5.6	0.0	5.6
1994	0.0	0.0	0.0	1994	16.5	0.0	16.5

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Saxman and Saxman IRA Council, 1994.

Table 14. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Sitka, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	68	540	608
	Surveyed Households	61	30	91
	Sampling Fraction	89.7%	5.6%	15.0%
	Sample Household Members	224	112	336
	Estimated Household Members	249.7	2016.0	2265.7

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	<u>Sea</u>	<u>Harbor</u>		<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
used	3.5%	90.9%	Total Number Harvested	1.1	110.5
Hunted	0.4%	32.1%	Total Number Struck and Lost	1.1	20.1
Harvested	0.2%	8.8%	Total Number Taken	2.2	130.6
Received	3.3%	74.5%			
Gave Away	0.4%	22.0%	Number Harvested Per Capita	0.00	0.05

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Struck & Lost	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Take	0	0	1	0	0	0	0	0	0	1	0	0	0	2
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.1
Struck & Lost	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	2.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0		1.1
Struck & Lost	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.1
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0		2.2
Total Take (%)	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2		
Cum Take (%)	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH												Unknown	Total	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec		Month
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	a	5	11	13	7	3	3	15	9	3	5	1	1	a4
Struck & Lost	0	5	1	5	1	0	0	2	1	1	2	0	0	18
Total Take	a	10	12	18	a	3	3	17	10	4	7	1	1	102
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	a.9	5.6	12.3	14.5	7.8	3.3	3.3	16.7	10.0	3.3	5.6	1.1	18.0	110.5
Struck & Lost	0.0	5.6	1.1	5.6	1.1	0.0	0.0	2.2	1.1	1.1	2.2	0.0	0.0	20.1
Total Take	a.9	11.1	13.4	20.1	a.9	3.3	3.3	19.0	11.1	4.5	7.8	1.1	1a.0	130.6
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	10.7	6.7	14.6	17.3	9.3	4.0	4.0	20.0	12.0	4.0	6.7	1.3		110.5
Struck & Lost	0.0	5.6	1.1	5.6	1.1	0.0	0.0	2.2	1.1	1.1	2.2	0.0		20.1
Total Take	10.7	12.2	15.8	22.9	10.4	4.0	4.0	22.2	13.1	5.1	a.9	1.3		130.6
Total Take (%)	8.2%	9.4%	12.1%	17.5%	8.0%	3.1%	3.1%	17.0%	10.0%	3.9%	6.8%	1.0%		100.0%
Cum Take	10.7	22.9	36.6	61.5	72.0	76.0	80.0	102.2	115.3	120.4	129.3	130.6		
Cum. Take (%)	0.2%	17.5%	29.6%	41.1%	55.1%	58.2%	61.2%	70.2%	80.3%	92.2%	99.0%	100.0%		

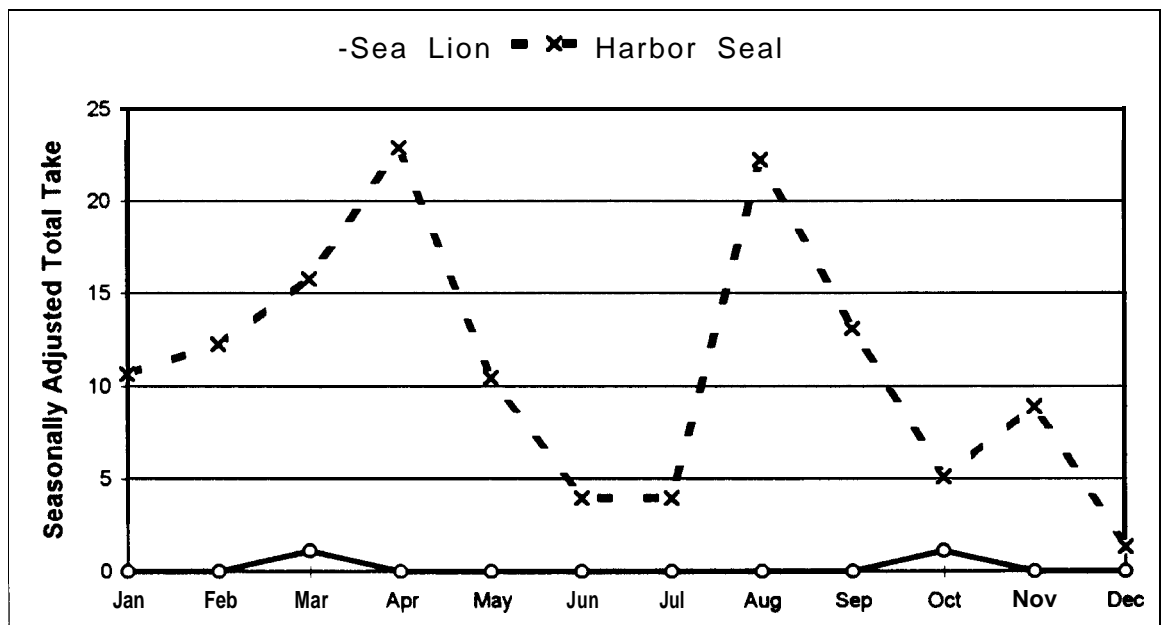
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the ANB and Sitka Tribal Association, 1994.

Table 14. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Sitka, 1994

HARVEST BY AGE AND SEX

	SeaLion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	43	51.2%	41.9	43.4%
Adult Female	0	0.0%	0.0	0.0%	16	19.0%	17.8	16.1%
Adult Unknown Sex	0	0.0%	0.0	0.0%	7	0.3%	7.8	7.1%
Juvenile Male	1	100.0%	1.1	100.0%	11	13.1%	12.3	11.1%
Juvenile Female	0	0.0%	0.0	0.0%	4	4.8%	4.5	4.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	1	1.2%	1.1	1.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	1	1.2%	1.1	1.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	1	1.2%	18.0	16.3%
Total	1	100.0%	1.1	100.0%	a 4	100.0%	110.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



EST/MATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	3.0	1.3	5.0	1992	124.7	21.4	146.1
1993	0.0	1.1	1.1	1993	109.3	20.6	129.9
1994	1.1	1.1	2.2	1994	110.5	20.1	130.6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the ANB and Sitka Tribal Association, 1994.

Table 15. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Wrangell, 1994

SAMPLING DESIGN:

<i>CHAIN REFERRAL</i>	Total Referred Households	7
	Surveyed Households	7
	Sampling Fraction	100.0%
	Sample Household Members	18
	Estimated Household Members	18.0

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	<u>Sea Lion</u>	<u>Harbor Seal</u>
Used	0.0%	28.6%
Hunted	0.0%	28.6%
Harvested	0.0%	28.6%
Received	0.0%	0.0%
Gave Away	0.0%	14.3%

Estimated Community Harvest and Take (Expanded):

	<u>Sea Lion</u>	<u>Harbor Seal</u>
Total Number Harvested	0.0	101.0
Total Number Struck and Lost	0.0	27.0
Total Number Taken	0.0	128.0
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	15	25	30	0	0	0	0	0	8	18	5	0	101
Struck & Lost	0	5	6	10	0	0	0	0	0	2	4	0	0	27
Total Take	0	20	31	40	0	0	0	0	0	10	22	5	0	128
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	15.0	25.0	30.0	0.0	0.0	0.0	0.0	0.0	8.0	18.0	5.0	0.0	101.0
Struck & Lost	0.0	5.0	6.0	10.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	0.0	0.0	27.0
Total Take	0.0	20.0	31.0	40.0	0.0	0.0	0.0	0.0	0.0	10.0	22.0	5.0	0.0	128.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	15.0	25.0	30.0	0.0	0.0	0.0	0.0	0.0	8.0	18.0	5.0		101.0
Struck & Lost	0.0	5.0	6.0	10.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	0.0		27.0
Total Take	0.0	20.0	31.0	40.0	0.0	0.0	0.0	0.0	0.0	10.0	22.0	5.0		128.0
Total Take (%)	0.0%	15.6%	24.2%	31.3%	0.0%	0.0%	0.0%	0.0%	0.0%	7.8%	17.1%	3.9%		100.0%
Cum. Take	0.0	20.0	51.0	91.0	91.0	91.0	91.0	91.0	91.0	101.0	123.0	128.0		
Cum. Take (%)	0.0%	15.6%	39.8%	71.1%	71.1%	71.1%	71.1%	71.1%	71.1%	78.9%	96.1%	100.0%		

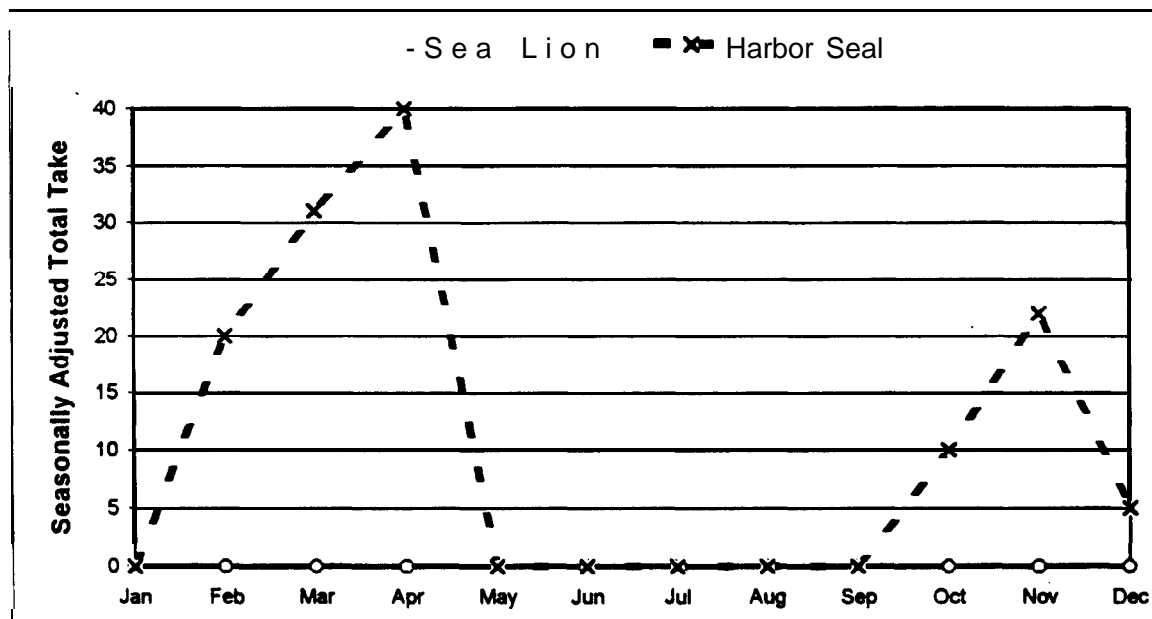
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Wrangell Cooperative Association, 1994.

Table 15. (conk) SEA LION & HARBOR SEAL HARVEST ESTIMATES: **Wrangell, 1994**

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	--	0.0	--	30	29.7%	30.0	29.7%
Adult Female	0	--	0.0	--	64	53.5%	54.0	53.5%
Adult Unknown Sex	0	--	0.0	--	10	9.9%	10.0	9.9%
Juvenile Male	0	--	0.0	--	2	2.0%	2.0	2.0%
Juvenile Female	0	--	0.0	--	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	--	0.0	--	5	5.0%	5.0	5.0%
Pup Male	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Female	0	--	0.0	--	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	--	0.0	--	0	0.0%	0.0	0.0%
Male Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Female Unknown Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	--	0.0	--	0	0.0%	0.0	0.0%
Total	0	--	0.0	--	101	100.0%	101.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	6.0	8.0	14.0
1993	0.0	0.0	0.0	1993	19.5	9.0	29.5
1994	0.0	0.0	0.0	1994	101.0	27.0	128.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Wrangell Cooperative Association, 1994.

Table 19. SEA LION AND HARBOR SEAL HARVEST MD TAKE ESTIMATES: Yakutat, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	124
Surveyed Households	92
Sampling Fraction	74.2%
Sample Household Members	301
Estimated Household Members	405.1

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Used	1.1%	95.6%
Hunted	0.0%	31.3%
Harvested	0.0%	30.2%
Received	1.1%	91.3%
Gave Away	0.0%	61.6%

**Estimated Community Harvest
and Take (Expanded):**

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Total Number Harvested	0.0	417.1
Total Number Struck and Lost	0.0	35.0
Total Number Taken	0.0	452.1
Number Harvested Per Capita	0.00	1.03

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	22	29	24	71	32	4	5	4	4	5	18	12	95	325
Struck & Lost	0	3	1	5	0	0	0	0	1	0	0	0	19	29
Total Take	22	32	25	76	32	4	5	4	5	5	18	12	114	354
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	20.0	37.4	30.7	79.1	43.3	5.4	6.0	5.4	5.4	6.6	24.3	16.2	120.4	417.1
Struck & Lost	0.0	4.1	1.0	5.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	23.6	35.0
Total Take	26.0	41.5	31.7	84.1	43.3	5.4	6.6	5.4	6.6	6.6	24.3	16.2	152.1	452.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	40.4	54.1	44.3	114.3	62.5	7.8	9.8	7.8	7.6	9.6	35.1	23.4		417.1
Struck & Lost	0.0	12.4	3.1	15.3	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0		35.0
Total Take	40.4	66.5	47.4	129.6	62.5	7.8	9.8	7.8	12.0	9.6	35.1	23.4		452.1
Total Take (%)	0.9%	14.7%	10.5%	20.7%	13.8%	1.7%	2.2%	1.7%	2.6%	2.2%	7.8%	5.2%		100.0%
Cum Take	40.4	106.9	154.3	203.9	246.4	254.2	364.0	371.0	383.0	393.5	420.7	452.1		
Cum Take (%)	0.9%	23.7%	34.1%	62.8%	76.6%	70.4%	80.5%	82.2%	84.9%	87.0%	94.8%	100.0%		

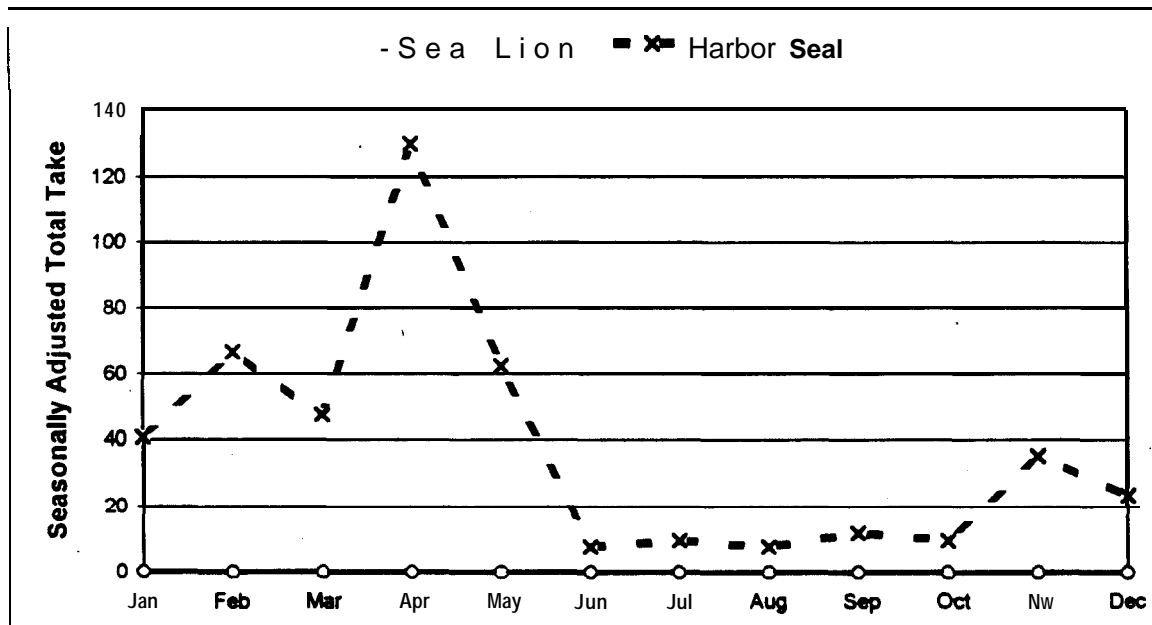
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Yakutat ANB/ANS, Yakutat Native Association, and Yak-Tat Kwaan, Inc., 1994

Table 16. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Yakutat, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	122	37.5%	150.1	36.0%
Adult Female	0	—	0.0	—	87	26.0%	110.2	20.4%
Adult Unknown Sex	0	—	0.0	—	110	33.8%	148.7	35.6%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	4	1.2%	5.4	1.3%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	2	0.6%	2.7	0.0%
Total	0	—	0.0	—	325	100.0%	417.1	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	248.0	61.3	309.3
1993	0.0	0.0	0.0	1993	568.4	51.4	625.6
1994	0.0	0.0	0.0	1994	417.1	35.0	452.1

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Yakutat ANB/ANS, Yakutat Native Association, and Yak-Tat Kwaan, Inc., 1994.

Table 17. SEA LION AND HARBOR SEAL HARVEST ESTIMATES: Chenega Bay, 1994

SAMPLING DESIGN:

CENSUS	Total Native Households	21
	Surveyed Households	16
	Sampling Fraction	76.2%
	Sample Household Members	63
	Estimated Household Members	62.7

HARVEST AND USE INFORMATION

Percentage of Native Households:

	Sea Lion	Harbor Seal
Used	62.5%	75.0%
Hunted	31.3%	50.0%
Harvested	25.0%	43.0%
Received	56.3%	75.0%
Gave Away	31.3%	1.3%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	6.6	42.0
Total Number Struck and Lost	0.0	3.9
Total Nuder Taken	6.6	45.9
Number Harvested Per Capita	0.08	0.51

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	1	0	0	0	1	0	0	0	1	0	0	5
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	1	1	1	0	0	0	1	0	0	0	1	0	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	1.3	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	0.0	6.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	1.3	1.3	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	0.0	6.6
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	1.3	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0		6.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	1.3	1.3	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0		6.6
Total Take (%)	20.0%	20.0%	20.0%	00%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	20.0%	0.0%		100.0%
Cum. Take	1.3	2.6	3.9	3.9	3.9	3.9	5.3	5.3	5.3	5.3	6.6	6.6		
Cum. Take (W)	20.0%	40.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	80.0%	80.0%	100.6%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	4	2	3	1	0	6	8	2	2	0	4	0	23
Struck & Lost	0	1	0	1	0	0	0	0	0	0	1	0	0	3
Total Take	0	5	2	4	1	0	6	8	2	2	1	4	0	26
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	5.3	2.6	3.9	1.3	0.0	7.9	10.5	2.6	2.6	0.0	5.3	0.0	42.0
Struck & Lost	0.0	1.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	3.9
Total Take	0.0	6.6	2.6	5.3	1.3	0.0	7.9	10.5	2.6	2.6	1.3	5.3	0.0	45.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	5.3	2.6	3.9	1.3	0.0	7.9	10.5	2.6	2.6	0.0	5.3		42.0
Struck & Lost	0.0	1.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0		3.9
Total Take	0.0	6.6	2.6	5.3	1.3	0.0	7.9	10.5	2.6	2.6	1.3	5.3		45.9
Total Take (%)	0.0%	14.3%	5.7%	11.4%	2.9%	0.0%	17.1%	22.9%	5.7%	5.7%	2.9%	11.4%		100.0%
Cum Take	0.0	6.6	9.2	14.4	15.6	15.0	23.6	34.1	36.8	39.4	40.7	45.9		
Cum Take (%)	0.0%	14.3%	200%	314%	34.3%	34.3%	51.4%	74.3%	80.0%	65.7%	66.6%	100.0%		

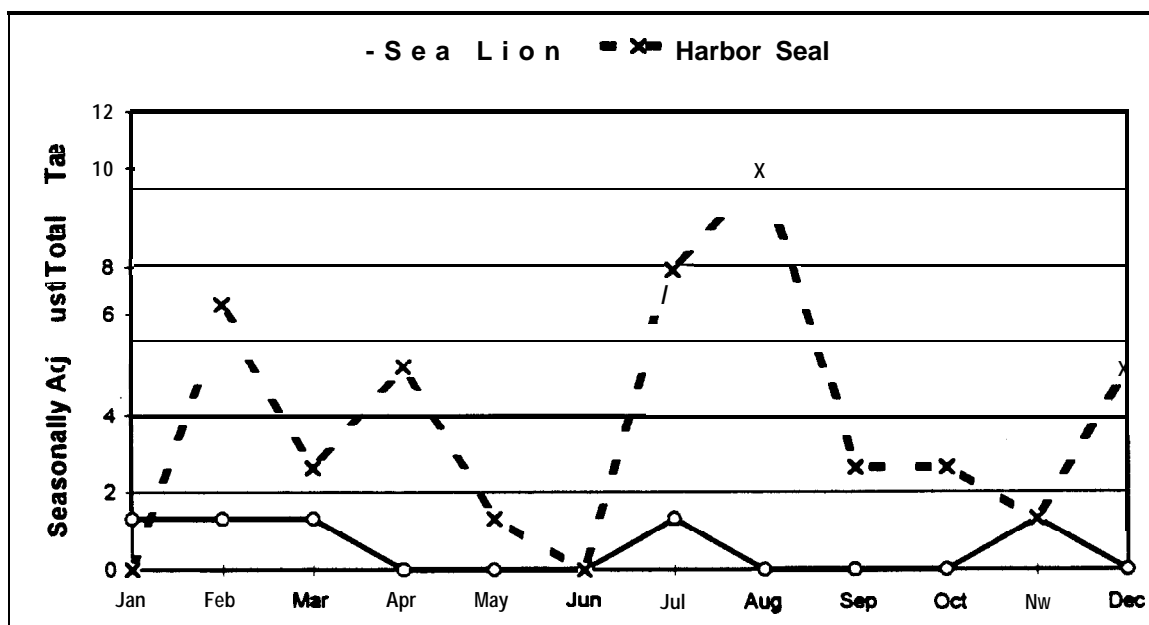
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitoring System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chenega Bay IRA Council, 1994

Table 17. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Chenega Bay, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	2	40.0%	2.6	40.0%	8	25.0%	10.5	25.0%
Adult Female	0	0.0%	0.0	0.0%	3	9.4%	3.9	9.4%
Adult Unknown Sex	0	0.0%	0.0	0.0%	2	6.3%	2.6	6.3%
Juvenile Male	2	40.0%	2.6	40.0%	7	21.9%	9.2	21.9%
Juvenile Female	1	20.0%	1.3	20.0%	1	3.1%	1.3	3.1%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	1	3.1%	1.3	3.1%
Pup Male	0	0.0%	0.0	0.0%	2	6.3%	2.6	6.3%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	8	25.0%	10.5	25.0%
Total	5	100.0%	6.6	100.0%	32	100.0%	42.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	6.9	1.2	6.1	1992	42.6	23.0	44.9
1993	11.1	6.6	17.7	1993	60.6	2.2	63.0
1994	6.6	0.0	6.6	1994	42.0	3.9	46.9

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chenega Bay IRA Council, 1994.

Table 18. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Cordova, 1994

<i>SAMPUNG DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	13	224	237
	Surveyed Households	10	26	36
	Sampling Fraction	76.9%	12.5%	16.0%
	Sample Household Members	31	77	108
	Estimated Household Members	40.3	616.0	656.3

HARVEST AND USE INFORMATION

Percentage of <i>Native Households</i> :			<i>Estimated Community Harvest and Take (Expanded):</i>		Sea Harbor	
	<u>Sea Lion</u>	<u>Harbor Seal</u>			<u>Lion</u>	<u>Seal</u>
Used	3.9%	37.0%	Total Number Harvested		0.0	135.8
Hunted	0.0%	6.7%	Total Number Struck and Lost		0.0	9.1
Harvested	0.0%	6.1%	Total Number Taken		0.0	144.9
Received	3.9%	35.9%				
Gave Away	3.9%	12.3%	Number Harvested Per Capita		0.00	0.21

SEA LION HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		

HARBOR SEAL HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	3	6	7	2	2	2	3	10	26	15	13	0	89
Struck & Lost	0	1	0	0	0	0	0	0	0	6	0	0	0	7
Total Take	0	4	6	7	2	2	2	3	10	32	15	13	0	96
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	3.9	21.2	15.8	2.6	2.6	2.6	3.9	13.0	33.8	19.5	16.9	0.0	135.8
Struck & Lost	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	9.1
Total Take	0.0	5.2	21.2	15.8	2.6	2.6	2.6	3.9	13.0	41.6	19.5	16.9	0.0	144.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	3.9	21.2	15.8	2.6	2.6	2.6	3.9	13.0	33.8	19.5	16.9		135.8
Struck & Lost	0.0	1.3	0.0	0.0	0.0	0.0	0.0	6.0	0.0	7.6	0.0	0.0		9.1
Total Take	0.0	5.2	21.2	15.8	2.6	2.6	2.6	3.9	13.0	41.6	19.5	16.9		144.9
Total Take (%)	0.0%	3.6%	14.6%	10.9%	1.8%	1.8%	1.8%	2.7%	9.0%	28.7%	13.5%	11.7%		100.0%
Cum. Take	0.0	5.2	26.4	42.2	44.8	47.4	50.0	53.9	66.9	106.5	128.0	144.9		
Cum. Take (%)	0.0%	36%	16.2%	29.1%	30.9%	32.7%	34.5%	37.2%	46.2%	74.9%	86.3%	100.0%		

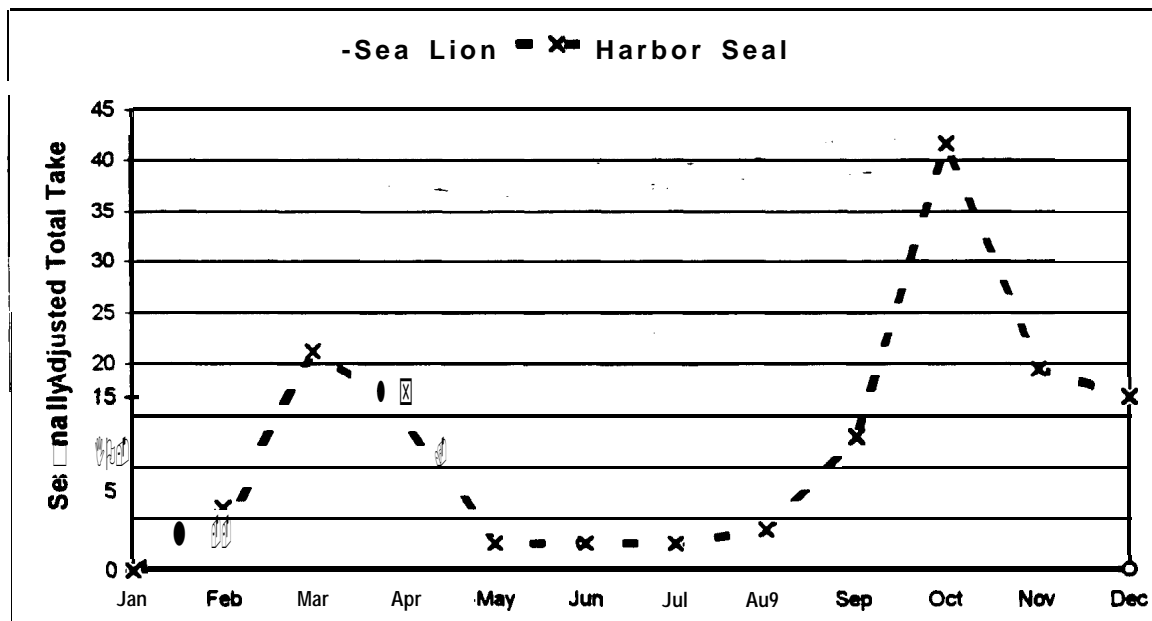
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Traditional Village of Eyak, 1994.

Table 18. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: **Cordova, 1994**

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	35	39.3%	45.5	33.5%
Adult Female	0	—	0.0	—	10	11.2%	13.0	9.6%
Adult Unknown Sex	0	—	0.0	—	3	3.4%	24.0	17.7%
Juvenile Male	0	—	0.0	—	3	3.4%	3.9	2.9%
Juvenile Female	0	—	0.0	—	2	2.2%	2.6	1.9%
Juvenile Unknown Sex	0	—	0.0	—	3	3.4%	3.9	2.9%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	8	9.0%	10.4	7.7%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	25	20.1%	32.5	23.9%
Total	0	—	0.0	—	69	100.0%	135.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	SW Total			Year	Struck/ Total		
	Harvest	Lost	Take		Harvest	Lost	Take
1992	0.0	0.0	0.0	1992	103.6	8.8	112.5
1993	1.5	0.0	1.5	1993	147.4	5.5	152.9
1994	0.0	0.0	0.0	1994	135.6	9.1	144.9

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Traditional Village of Eyak, 1994

Table 19. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Nanwalek, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	36
Surveyed Households	31
Sampling Fraction	86.1%
Sample Household Members	124
Estimated Household Members	144.0

HARVEST AND USE INFORMATION*Percentage of Native Households:*

	Sea Lion	Harbor Seal
used	45.2%	71.0%
Hunted	9.7%	29.0%
Harvested	3.2%	22.6%
Received	45.2%	67.7%
Gave Away	35.5%	48.4%

*Estimated Community Harvest
and Take (Expanded):*

	Sea Lion	Harbor Seal
Total Number Harvested	1.2	29.0
Total Number Struck and Lost	2.3	4.6
Total Number Taken	3.5	33.7
Number Harvested Per Capita	0.01	0.20

SEA LION HARVEST BY MONTH												Unknown Month		Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Struck & Lost	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Total Take	0	0	0	3	0	0	0	0	0	0	0	0	0	3
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
struck & Lost	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Total Take	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Struck & Lost	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Total Take	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Total Take (%)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
Cum. Take (%)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown Month		Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec				
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Halves!	0	0	3	4	2	1	3	9	3	0	0	0	0	25	
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	4	4	
Total Take	0	0	3	4	2	1	3	9	3	0	0	0	4	29	
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	3.5	4.6	2.3	1.2	3.5	10.5	3.5	0.0	0.0	0.0	0.0	29.0	
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6	
Total Take	0.0	0.0	3.5	4.6	2.3	1.2	3.5	10.5	3.5	0.0	0.0	0.0	4.6	33.7	
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	3.5	4.6	2.3	1.2	3.5	10.5	3.5	0.0	0.0	0.0	0.0	29.0	
Struck & Lost	0.0	0.0	0.6	0.7	0.4	0.2	0.6	1.7	0.6	0.0	0.0	0.0		4.6	
Total Take	0.0	0.0	4.0	5.4	2.7	1.3	4.0	12.1	4.0	0.0	0.0	0.0		33.7	
Total Take (%)	0.0%	0.0%	12.0%	16.0%	8.0%	4.0%	12.0%	36.0%	12.0%	0.0%	0.0%	0.0%		100.0%	
Cum. Take	0.0	0.0	4.0	9.4	12.1	13.5	17.5	29.6	33.7	33.7	33.7	33.7			
Cum Take (%)	0.0%	0.0%	12.0%	28.0%	36.0%	40.0%	52.0%	88.0%	100.0%	100.0%	100.0%	100.0%			

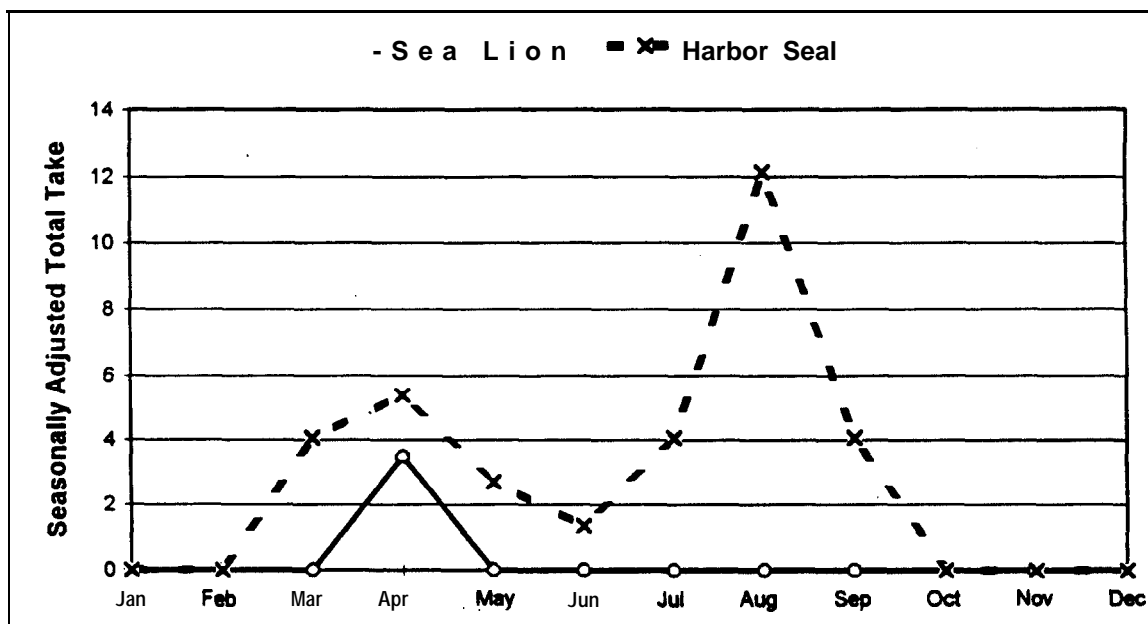
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Nanwalek Traditional Council and English Bay Corporation, 1994.

Table 19. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Nanwalek, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Adult Female	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Juvenile Male	0	0.0%	0.0	0.0%	7	26.0%	8.1	26.0%
Juvenile Female	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Juvenile Unknown Sex	1	100.0%	1.2	100.0%	5	20.0%	5.8	20.0%
Pup Male	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	1	4.0%	1.2	4.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	7	26.0%	8.1	26.0%
Total	1	100.0%	1.2	100.0%	25	100.0%	29.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	S W	
		Lost	Take			Lost	Take
1992	6.3	0.0	6.3	1992	27.9	0.0	27.9
1993	6.5	1.1	9.5	1993	33.9	3.2	37.1
1994	1.2	2.3	3.5	1994	29.0	4.6	33.7

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Nanwalek Traditional Council and English Bay Corporation, 1994.

Table 20. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Port Graham, 1994**SAMPUNG DESIGN:****CENSUS**

Total Native Households	62
Surveyed Households	60
Sampling Fraction	96.8%
Sample Household Members	169
Estimated Household Members	174.6

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	31.7%	61.7%
Hunted	5.0%	31.7%
Harvested	0.0%	13.3%
Received	31.7%	80.0%
Gave Away	6.7%	25.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	15.5
Total Number Struck and Lost	0.0	5.2
Total Number Taken	0.0	20.7
Number Harvested Per Capita	0.00	0.09

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	0	0	2	0	0	0	1	1	0	0	5	5	15
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	2	3	5
Total Take	1	0	0	2	0	0	0	1	1	0	0	7	8	20
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.0	0.0	0.0	2.1	0.0	0.0	0.0	1.0	1.0	0.0	0.0	5.2	5.2	15.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3.1	5.2
Total Take	1.0	0.0	0.0	2.1	0.0	0.0	0.0	1.0	1.0	0.0	0.0	7.2	8.3	20.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.6	0.0	0.0	3.1	0.0	0.0	0.0	1.6	1.6	0.0	0.0	7.0		15.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2		5.2
Total Take	1.6	0.0	0.0	3.1	0.0	0.0	0.0	1.6	1.6	0.0	0.0	12.9		20.7
Total Take (%)	75%	0.0%	0.0%	15.0%	0.0%	0.0%	0.0%	7.5%	7.5%	0.0%	0.0%	62.5%		100.0%
Cum. Take	1.6	1.6	1.6	4.7	4.7	4.7	4.7	6.2	7.0	7.6	7.6	20.7		
Cum. Take (%)	75%	75%	75%	22.5%	22.5%	22.5%	22.5%	30.0%	37.5%	37.5%	37.5%	100.0%		

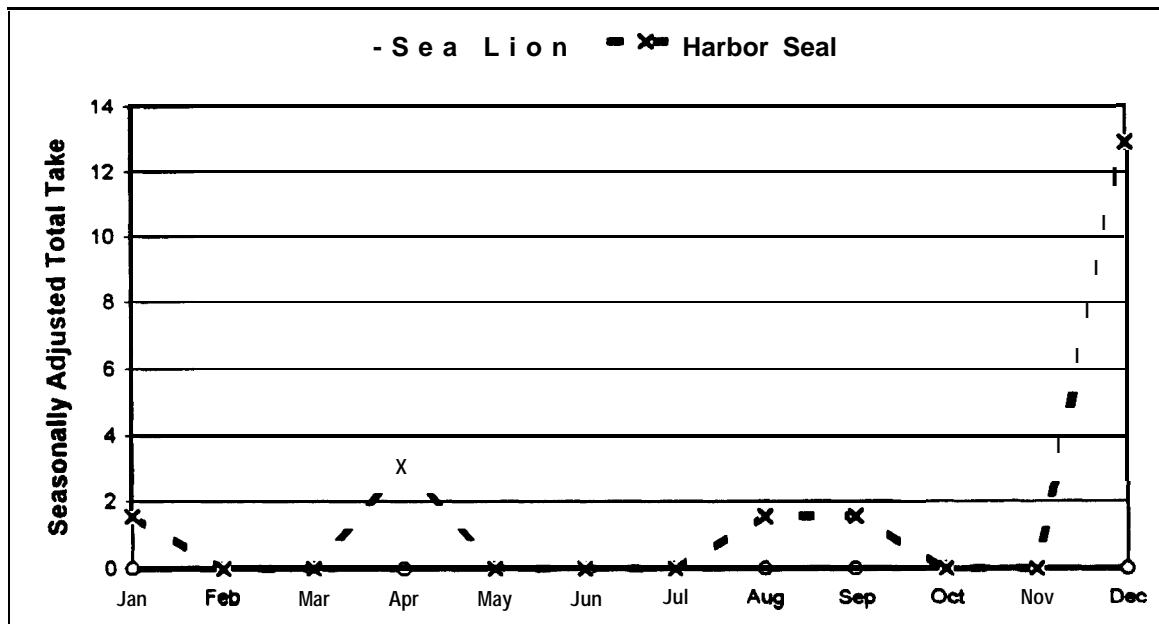
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Port Graham Village Council and Port Graham Corporation, 1994.

Table 20. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Port Graham, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	20.0%	3.1	20.0%
Adult Female	0	—	0.0	—	2	13.3%	2.1	13.3%
Adult Unknown Sex	0	—	0.0	—	5	33.3%	5.2	33.3%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	1	6.7%	1.0	6.7%
Juvenile Unknown Sex	0	—	0.0	—	1	6.7%	1.0	6.7%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	3	20.0%	3.1	20.0%
Total	0	—	0.0	—	15	100.0%	15.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Shuck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	3.6	1.2	4.7	1992	36.2	4.7	40.6
1993	1.1	0.0	1.1	1993	30.6	3.2	33.7
1994	0.0	0.0	0.0	1994	15.5	5.2	20.7

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Port Graham Village Council and Port Graham Corporation, 1994

Table 21. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Seldovia, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA				
	Total Native Households	12	30	42
	Surveyed Households	9	20	29
	Sampling Fraction	75.0%	66.7%	69.0%
	Sample Household Members	18	58	76
	Estimated Household Members	24.0	87.0	111.0

HARVEST AND USE INFORMATION

Percentage of **Native** Households:

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Used	14.3%	47.6%
Hunted	3.2%	22.2%
Harvested	0.0%	9.5%
Received	14.3%	27.0%
Gave Away	3.6%	13.1%

Estimated Community **Harvest**
and Take (**Expanded**):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	8.0
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	0.0
Number Harvested Per Capita	0.00	0.07

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck a Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck a Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	2	0	0	0	0	4	6
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	2	0	0	0	0	4	6
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	5.3	8.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	5.3	8.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0		8.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0		8.0
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.0	8.0	8.0	8.0		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

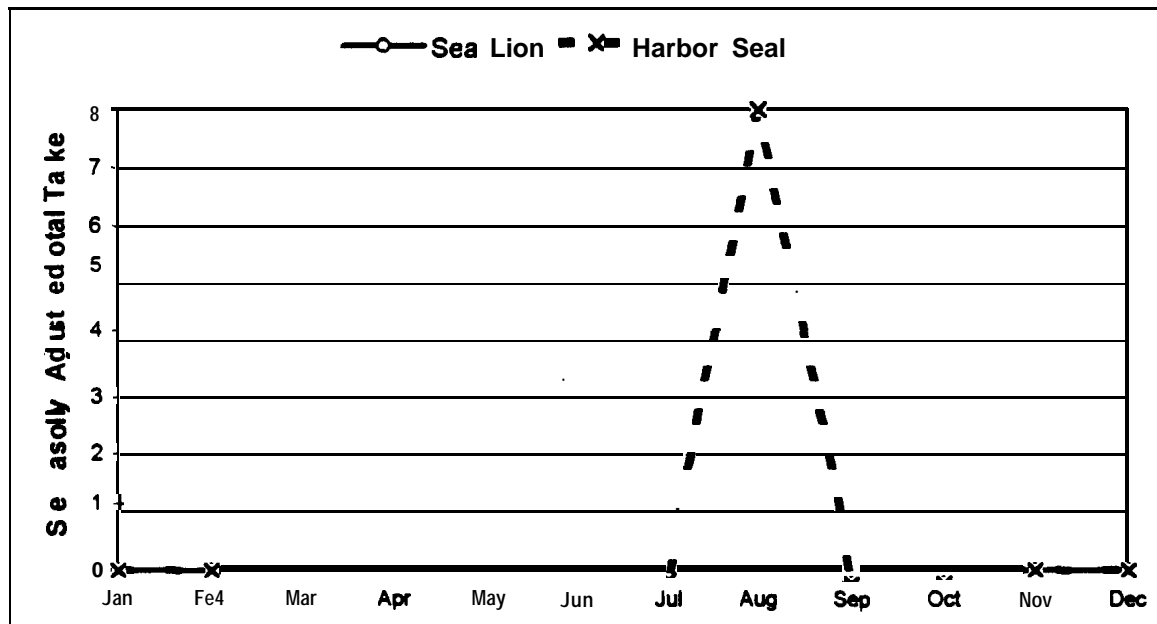
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Seldovia Native Association, 1994.

Table 21. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Seldovia, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	5	83.3%	6.7	83.3%
Juvenile Male	0	—	0.0	—	1	16.7%	1.3	16.7%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	6	100.0%	8.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/Lost	Total Take	Year	Harvest	Struck/Lost	Total Take
1992	0.0	0.0	0.0	1992	12.4	0.0	12.4
1993	0.0	0.0	0.0	1993	7.9	4.9	12.8
1994	0.0	0.0	0.0	1994	8.0	0.0	8.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitoring System for Sea Lions and Harbor Seals in Alaska, with assistance from the Seldovia Native Association, 1994.

Table 22. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Seward, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	9	147	156
	Surveyed Households	9	23	32
	Sampling Fraction	100.0%	15.6%	20.5%
	Sample Household Members	34	56	90
	Estimated Household Members	34.0	357.9	391.9

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
used	0.0%	16.6%
Hunted	0.0%	1.3%
Harvested	0.0%	1.3%
Received	0.0%	15.5%
Gave Away	0.0%	1.3%

Estimated Community Harvest and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	5.0
Total Number Struck and Lost	0.0	0.0
Total Nuder Taken	0.0	5.0
Number Harvested Per Capita	0.00	0.01

SEA LION HARVEST & BY MONTH														
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Unknown Month</u>	<u>Total</u>
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH														
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Unknown Month</u>	<u>Total</u>
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	0	0	0	0	0	0	4	0	0	5
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	1	0	0	0	0	0	0	0	4	0	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	5.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	5.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0		5.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0		5.0
Total Take (%)	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	5.0	5.0		
Cum. Take (%)	0.0%	0.0%	20.0%	200%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	100.0%	100.0%		

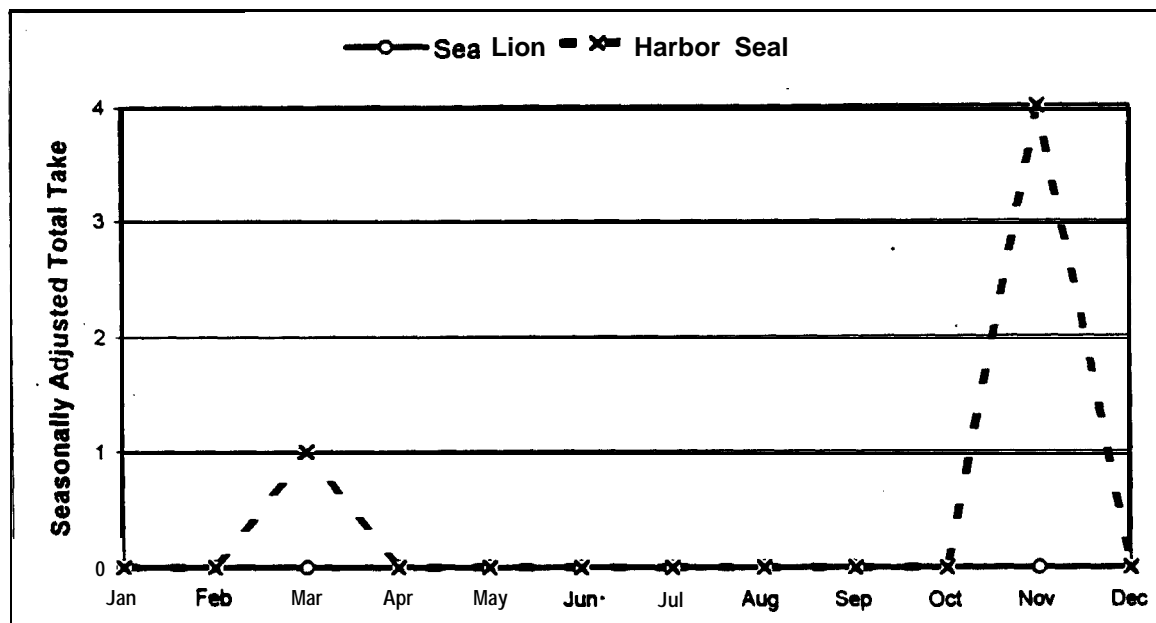
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Qutekuk Native Tribe, 1994.

Table 22. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Seward, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	60.0%	3.0	60.0%
Adult Female	0	—	0.0	—	2	40.0%	2.0	40.0%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	5	100.0%	5.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	2.0	0.0	2.0
1993	0.0	0.0	0.0	1993	0.0	0.0	0.0
1994	0.0	0.0	0.0	1994	5.0	0.0	5.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Qutekca Native Tribe, 1994.

Table 22. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Tatitlek, 1994**SAMPLING DESIGN:
CENSUS**

Total Native Households	28
Surveyed Households	19
Sampling Fraction	67.9%
Sample Household Members	67
Estimated Household Members	96.7

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	47.4%	94.7%
Hunted	21.1%	47.4%
Harvested	5.3%	31.6%
Received	47.4%	94.7%
Gave Away	15.8%	47.4%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	8.8	145.9
Total Number Struck and Lost	7.4	30.9
Total Number Taken	16.2	176.8
Number Harvested Per Capita	0.09	1.46

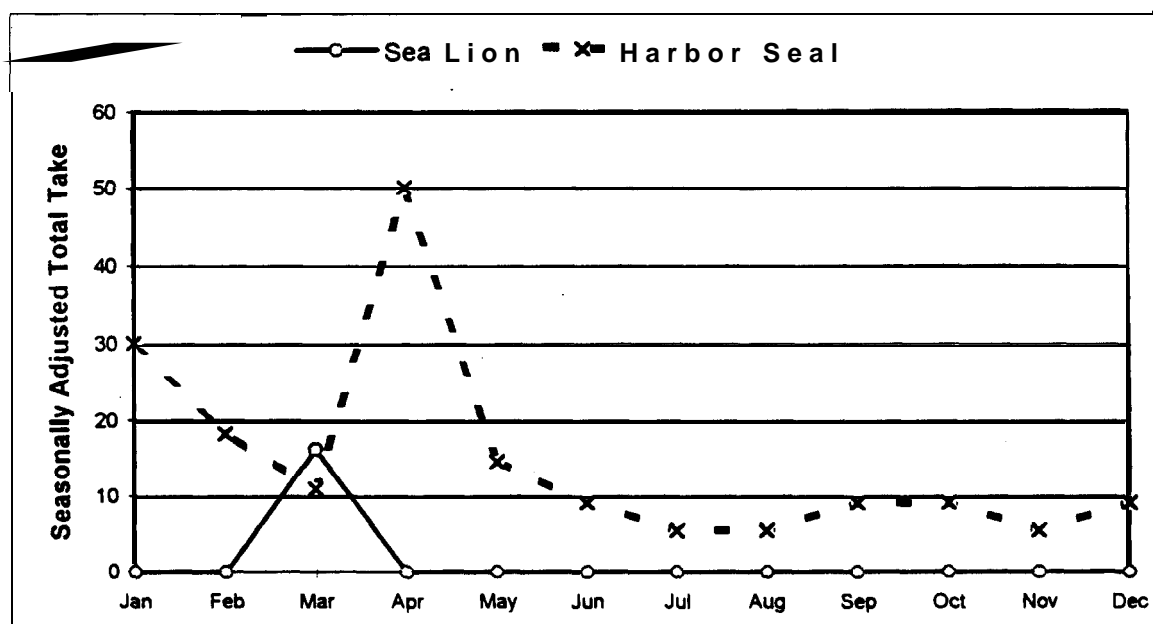
SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	0	0	0	0	0	0	0	0	5	6
Struck&Lost	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Total Take	0	0	1	0	0	0	0	0	0	0	0	0	10	11
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	8.8
Struck&Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	7.4
Total Take	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	16.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		8.8
Struck & Lost	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		7.4
Total Take	0.0	0.0	16.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		16.2
Total Take(%)	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2		
Cum. Take (%)	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	8	10	6	19	a	5	3	3	5	5	3	5	19	99	
Struck & Lost	1	0	01.0		0	0	0		0	0	0	0	19	21	
Total Take	9	10	6	2	0	6	5	3	3	5	5	3	5	38	120
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	11.8	14.7	8.8	28.0	11.8	74	4.4	4.4	7.4	74	4.4	74	28.0	145.9	
Struck&Lost	15	0.0	0.0	1.5	0.0	0.0	00	0.0	00	0.0	0.0	00	280	30.9	
Total Take	13.3	14.7	8.8	29.5	11.0	74	44	4.4	74	74	44	74	56.0	176.8	
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	14.6	18.2	10.9	34.7	14.6	9	1	5.5	5.5	9.1	9.1	5.5	91	145.9	
Struck&Lost	155	0.0	0.0	155	00	00	00	00	0.0	00	0.0	0.0		309	
Total Take	301	10.2	10.9	50	1	146	91	5.5	55	91	9.1	5.5	91	1766	
Total Take (%)	17 0%	10.3%	6.2%	28.3%	8.3%	5.2%	31%	3.1%	5.2%	5.2%	3.1%	52%		1000%	
Cum Take	30 1	463	59.2	1094	1240	1331	138.5	1440	1531	1623	1677	1768			
Cum Take(%)	170%	273%	335%	61.8%	701%	753%	70.3%	814%	866%	918%	94.8%	100.0%			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Tatitlek IRA Council, 1994

Table 23. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Tatitlek, 1994*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	4	4.0%	5.9	4.0%
Adult Female	0	0.0%	0.0	0.0%	2	2.0%	2.9	2.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	17	17.2%	25.1	17.2%
Juvenile Male	0	0.0%	0.0	0.0%	a	4.0%	5.9	4.0%
Juvenile Female	0	0.0%	0.0	0.0%	1	1.0%	1.5	1.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	11	11.1%	16.2	11.1%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	5	5.1%	7.4	5.1%
Male Unknown Age	0	0.0%	0.0	0.0%	3	3.0%	4.4	3.0%
Female Unknown Age	0	0.0%	0.0	0.0%	4	4.0%	5.9	4.0%
Unknown Sex and Age	6	100.0%	8.8	100.0%	48	48.5%	70.7	40.5%
Total	6	100.0%	8.8	100.0%	99	100.0%	145.9	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.3	4.2	12.5	1992	162.9	17.7	170.6
1993	4.1	1.0	5.2	1993	110.6	15.5	126.4
1994	6.8	7.4	16.2	1994	145.9	30.9	176.8

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Tatitlek IRA Council, 1994.

Table 24. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Valdez, 1994

SAMPLING DESIGN:

CHAIN REFERRAL	Total Referred Households	6
	Surveyed Households	6
	Sampling Fraction	100.0%
	Sample Household Members	27
	Estimated Household Members	27.0

HARVEST AND USE INFORMATION

Percentage of Sample Households:

	Sea Lion	Harbor Seal
Used	0.0%	66.7%
Hunted	0.0%	50.0%
Harvested	0.0%	50.0%
Received	0.0%	18.7%
Gave Away	0.0%	50.0%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	30.0
Total Number Struck and Lost	0.0	3.0
Total Number Taken	0.0	33.0
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	4	2	2	8	4	2	2	0	0	0	0	4	2	30
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Total Take	4	2	2	8	4	2	2	0	0	0	0	7	2	33
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	4.0	2.0	2.0	8.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0	4.0	2.0	30.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Total Take	4.0	2.0	2.0	8.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0	7.0	2.0	33.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED).														
Harvest	4.3	2.1	2.1	8.8	4.3	2.1	2.1	0.0	0.0	0.0	0.0	4.3		30.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0		3.0
Total Take	4.3	2.1	2.1	8.8	4.3	2.1	2.1	0.0	0.0	0.0	0.0	7.3		33.0
Total Take (%)	13.0%	6.5%	6.5%	26.0%	13.0%	6.5%	6.5%	0.0%	0.0%	0.0%	0.0%	22.1%		100.0%
Cum Take	4.3	6.4	8.6	17.1	21.4	23.6	25.7	25.7	25.7	25.7	25.7	33.0		
Cum Take (%)	130%	195%	26.0%	51.9%	64.9%	71.4%	77.9%	77.9%	77.9%	77.9%	77.9%	100.0%		

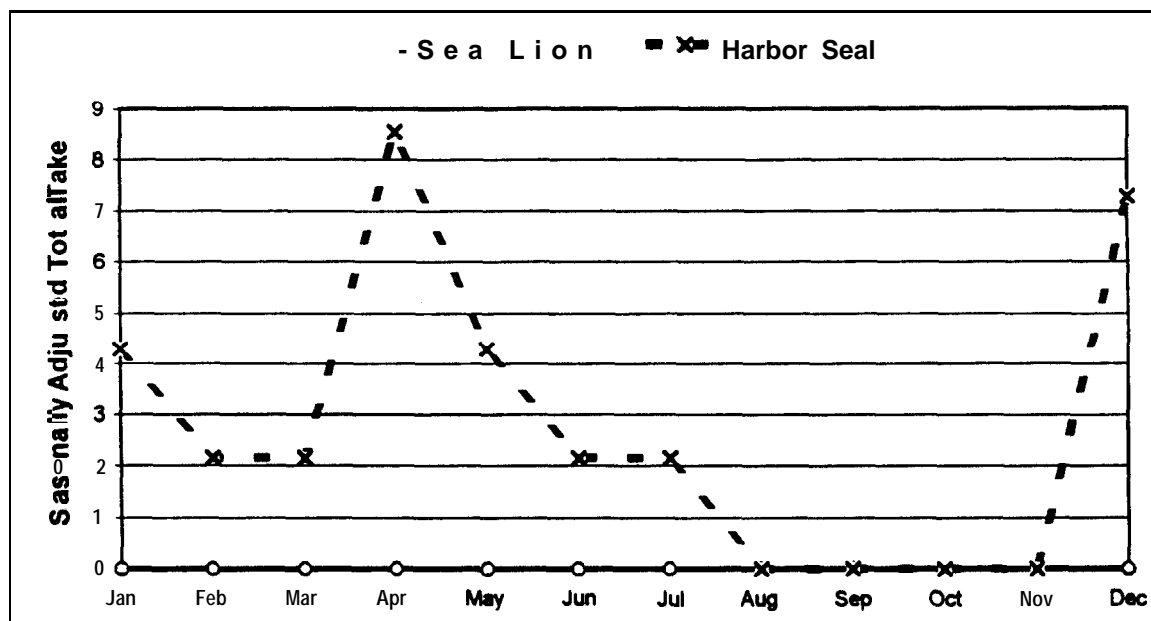
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Valdez Native Association, 1994.

Table 24. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Valdez, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	9	30.0%	9.0	30.0%
Adult Female	0	—	0.0	—	7	23.3%	7.0	23.3%
Adult Unknown Sex	0	—	0.0	—	8	26.7%	0.0	26.7%
Juvenile Male	0	—	0.0	—	1	3.3%	1.0	3.3%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	5	16.7%	5.0	16.7%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	30	100.0%	30.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Lost	Total	Year	Harvest	Lost	Total
1992	0.0	0.0	0.0	1992	0.0	0.0	0.0
1993	0.0	0.0	0.0	1993	21.0	4.0	26.0
1994	0.0	0.0	0.0	1994	30.0	3.0	33.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Valdez Native Association, 1994

Table 29. SEA LION AND HARBOR SEAL HARVEST MD TAKE ESTIMATES: Anchorage, 1994**SAMPLING DESIGN:****CHAIN REFERRAL**

Total Referred Households	58
Surveyed Households	41
Sampling Fraction	70.7%
Sample Household Members	132
Estimated Household Memben	166.7

HARVEST AND USE INFORMATION**Percentage of Sample Households:**

	Sea Lion	Harbor Seal
Used	36.6%	61.0%
Hunted	7.3%	7.3%
Harvested	2.4%	7.3%
Received	34.1%	58.5%
Gave Away	36.6%	53.7%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	1.4	4.2
Total Number Struck and Lost	0.0	0.0
Total Number Taken	1.4	4.2
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH														Unknown Month Total	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0			1.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0			1.4
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%			100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4			
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
HARBOR SEAL HARVEST BY MONTH															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	0	0	0	1	0	0	10	10	0	0	0	0	0	0	3
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	1.4	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	4.2
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	1.4	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	4.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	1.4	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0			4.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take	0.0	0.0	0.0	1.4	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0			4.2
Total Take (%)	0.0%	0.0%	0.0%	33.3%	0.0%	33.3%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%			100.0%
Cum Take	0.0	0.0	0.0	1.4	1.4	2.0	2.8	4.2	4.2	4.2	4.2	4.2			
Cum Take (%)	0.0%	0.0%	0.0%	33.3%	33.3%	66.7%	66.7%	100.0%	100.0%	100.0%	100.0%	100.0%			

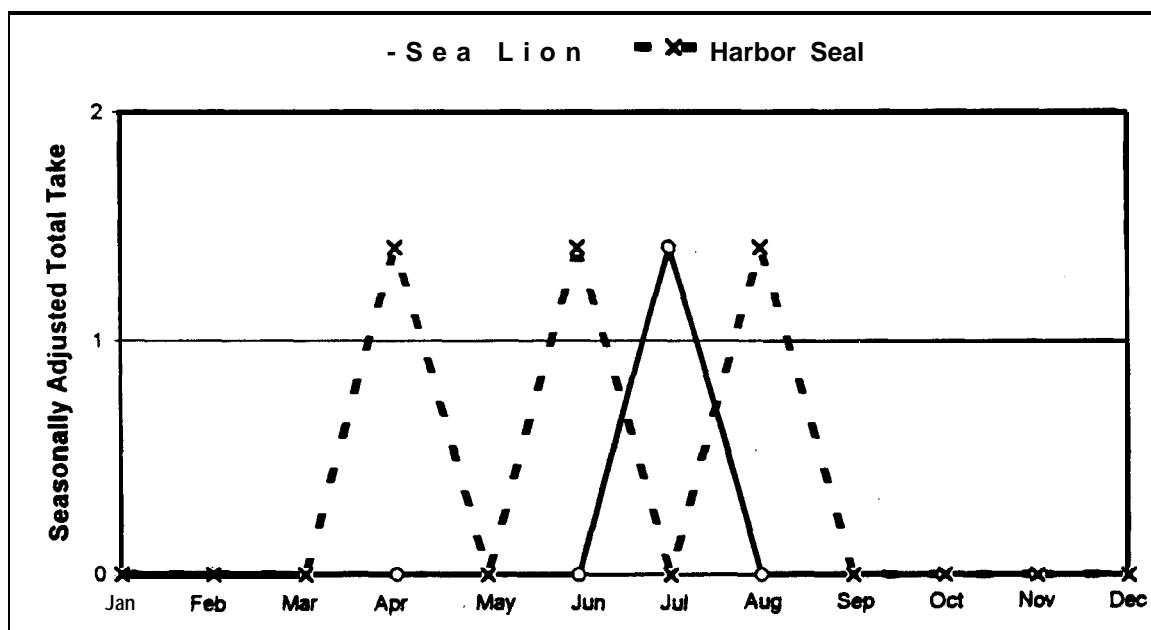
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Cook Inlet Tribal Council and Alaska Federation of Natives, 1994.

Table 25. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Anchorage, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	100.0%	1.4	100.0%	1	33.3%	1.4	33.3%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	2	66.7%	2.0	66.7%
Juvenile Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	1	100.0%	1.4	100.0%	3	100.0%	4.2	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH. SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	5.7	3.0	9.5	1992	17.1	0.0	17.1
1993	7.8	3.3	11.1	1993	24.4	5.6	30.0
1994	1.4	0.0	1.4	1994	4.2	0.0	4.2

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Cook Inlet Tribal Council and Alaska Federation of Natives, 1994.

Table 26. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Homer, 1994

SAMWNG DESIGN:

CHAIN REFERRAL

Total Referred Households	6
Surveyed Households	5
Sampling Fraction	83.3%
Sample Household Members	20
Estimated Household Members	24.0

HARVEST AND USE INFORMATION**Percentage of Sample Households:**

	Sea Lion	Harbor Seal
Used	0.0%	100.0%
Hunted	0.0%	80.0%
Harvested	0.0%	40.0%
Received	0.0%	60.0%
Gave Away	0.0%	40.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	12.0
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	12.0
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—				
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—				

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	9	0	0	0	0	0	1	0	0	0	0	10
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	9	0	0	0	0	0	1	0	0	0	0	10
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	12.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	12.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0		12.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0		12.0
Total Take (%)	0.0%	0.0%	90.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%		100.0%
Cum Take	0.0	0.0	10.8	10.8	10.8	10.8	10.8	10.8	12.0	12.0	12.0	12.0		
Cum Take (%)	0.0%	00%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	100.0%	100.0%	100.0%	100.0%		

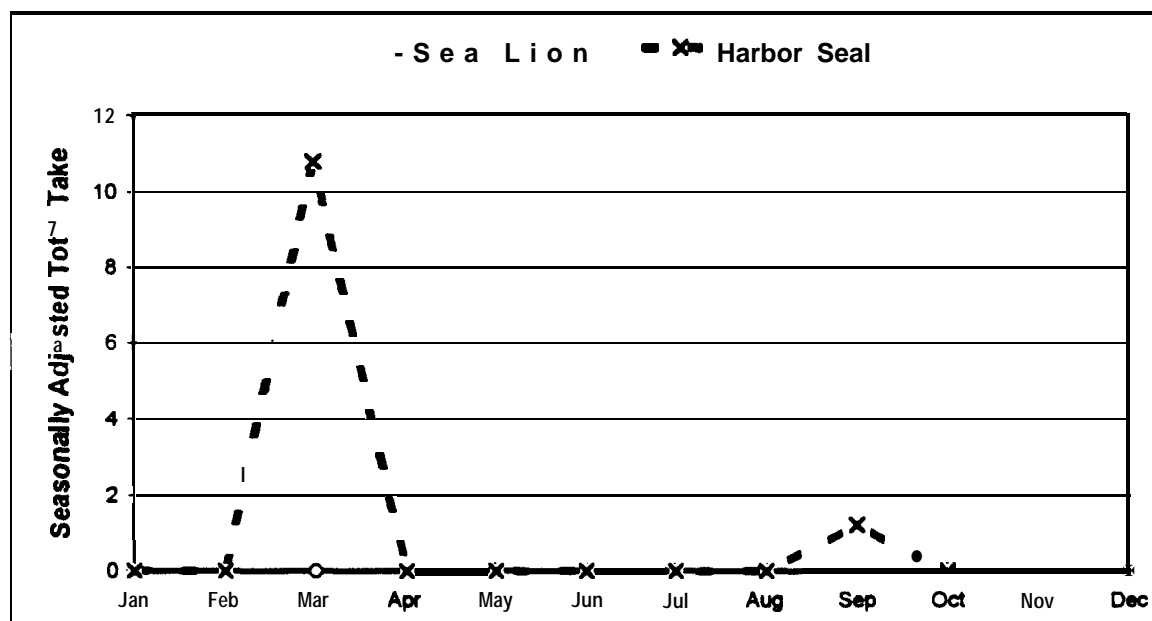
SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska.

Table 26. (con!.) SEA **LION** & HARBOR SEAL HARVEST ESTIMATES: Homer, 1994

HARVEST BY **AGE** AND SEX

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	9	90.0%	10.8	90.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	1	10.0%	1.2	10.0%
Total	0	—	0.0	—	10	100.0%	12.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA **LION** AND HARBOR SEAL



ESTIMATED **COMMUNITY** HARVEST, **STRUCK** AND **LOST**, AND TAKE **BY** YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	—	—	—	1992	—	—	—
1993	0.0	0.0	0.0	1993	4.8	0.0	4.8
1994	0.0	0.0	0.0	1994	12.0	0.0	12.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska

Table 27. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Akhiok, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	21
Surveyed Households	13
Sampling Fraction	61.9%
Sample Household Members	47
Estimated Household Members	75.9

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	76.9%	92.3%
Hunted	23.1%	38.5%
Harvested	15.4%	3.5%
Received	61.5%	61.5%
Gave Away	23.1%	30.6%

**Estimated Community Harvest
and Take (Expend):**

	Sea Lion	Harbor Seal
Total Number Harvested	3	2
Total Number Struck and Lost	0.0	0.0
Total Number Taken	3	2
Number Harvested Per Capita	0.04	0.19

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	0	0	0	0	1	0	0	0	0	2
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	1	0	0	0	0	0	1	0	0	0	0	2
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	3.2
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	3.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0		3.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0		3.2
Total Take (%)	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%		100%
Cum. Take	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2		
Cum. Take (%)	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	100.0%	100.0%	100.0%	100.0%		

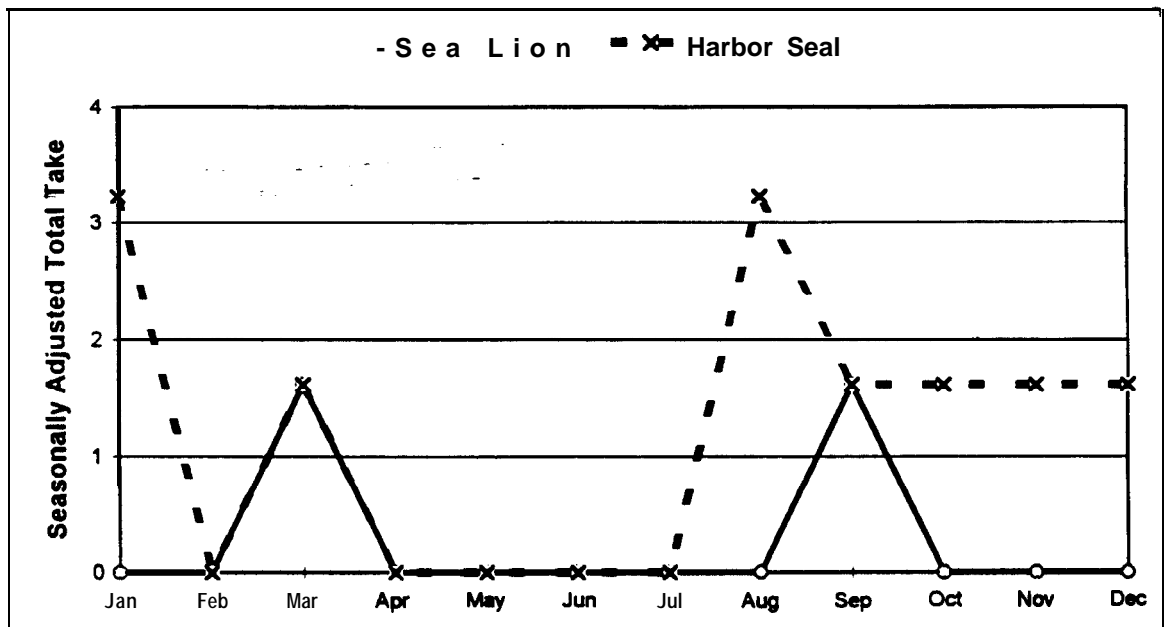
HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	0	1	0	0	0	0	2	1	1	1	1	0	9
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	2	0	1	0	0	0	0	2	1	1	1	1	0	9
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	3.2	0.0	1.6	0.0	0.0	0.0	0.0	3.2	1.6	1.6	1.6	1.6	0.0	14.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	3.2	0.0	1.6	0.0	0.0	0.0	0.0	3.2	1.6	1.6	1.6	1.6	0.0	14.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	3.2	0.0	1.6	0.0	0.0	0.0	0.0	3.2	1.6	1.6	1.6	1.6		14.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	3.2	0.0	1.6	0.0	0.0	0.0	0.0	3.2	1.6	1.6	1.6	1.6		14.5
Total Take (%)	22.2%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	22.2%	11.1%	11.1%	11.1%	11.1%		100.0%
Cum. Take	3.2	3.2	4.8	4.8	4.8	4.8	4.0	6.1	9.7	11.3	12.9	14.5		
Cum. Take (%)	22.2%	22.2%	33.3%	33.3%	33.3%	33.3%	33.3%	55.6%	66.7%	77.8%	88.9%	100.0%		

Sponsored by the Department of Fish and Game, Division of Subsistence, Resource Study and Monitor System for Lions and Harbor Seals in Alaska, with assistance from the City of Akhiok and Akhiok Tribal Council, 1994.

Table 27. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Akhiok, 1994*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	2	100.0%	3.2	100.0%	3	33.3%	4.0	33.3%
Adult Female	0	0.0%	0.0	0.0%	1	11.1%	1.6	11.1%
Adult Unknown Sex	0	0.0%	0.0	0.0%	1	11.1%	1.6	11.1%
Juvenile Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	4	44.4%	6.5	44.4%
Total	2	100.0%	3.2	100.0%	9	100.0%	14.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	3.0	1.0	4.0	1992	20.0	3.0	23.0
1993	0.0	0.0	0.0	1993	13.3	0.0	13.3
1994	3.2	0.0	3.2	1994	14.5	0.0	14.5

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Akhiok and Akhiok Tribal Council, 1994.

Table 28. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Karluk, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	14
Surveyed Households	13
Sampling Fraction	92.9%
Sample Household Members	46
Estimated Household Members	48.5

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	0.0%	30.8%
Hunted	0.0%	7.7%
Harvested	0.0%	7.7%
Received	0.0%	30.8%
Gave Away	0.0%	7.7%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	7.5
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	7.5
Number Harvested Per Capita	0.00	0.16

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	2	2	0	0	0	10		0	0	0	0	7
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	1	1	2	2	0	0	0	10		0	0	0	0	7
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	2.2	2.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	1.1	1.1	2.2	2.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	7.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	2.2	2.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0		7.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	1.1	1.1	2.2	2.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0		7.5
Total Take (%)	14.3%	14.3%	26.6%	28.6%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	1.1	2.2	4.3	6.5	6.5	6.5	6.5	7.5	7.5	7.5	7.5	7.5		
Cum. Take (%)	14.3%	26.6%	57.1%	65.7%	65.7%	65.7%	65.7%	100.0%	100.0%	100.0%	100.0%	100.0%		

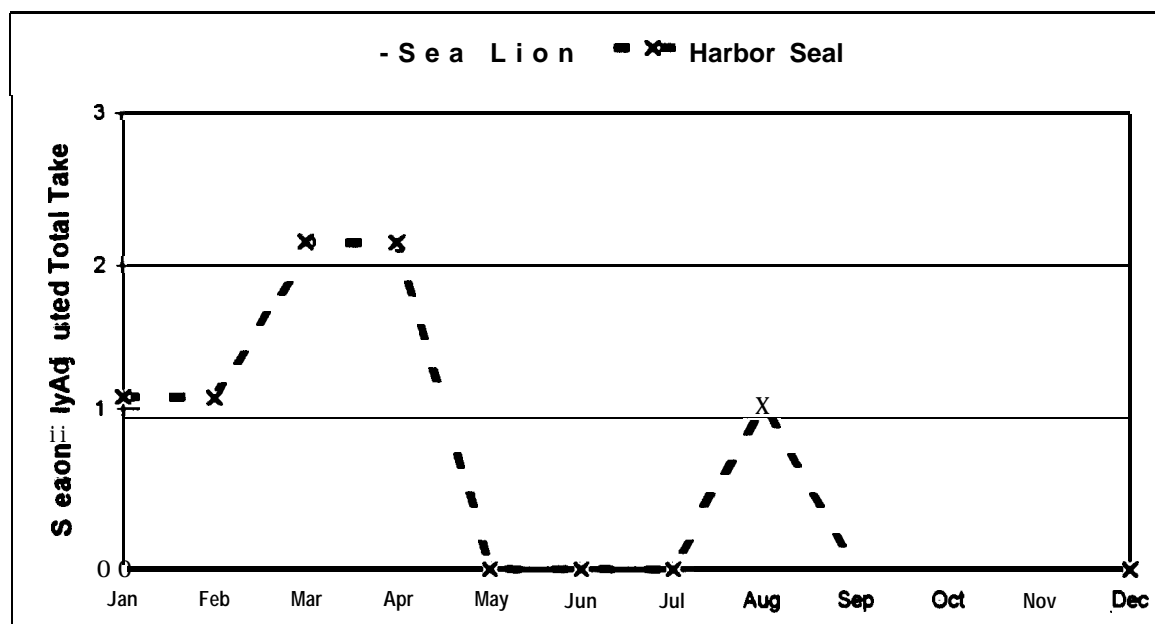
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Karluk IRA council, 1994.

Table 28. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Karluk, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	42.9%	3.2	42.9%
Adult Female	0	—	0.0	—	1	14.3%	1.1	14.3%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	1	14.3%	1.1	14.3%
Juvenile Female	0	—	0.0	—	1	14.3%	1.1	14.3%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	1	14.3%	1.1	14.3%
Total	0	—	0.0	—	7	100.0%	7.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	16.5	1.5	18.0
1993	0.0	0.0	0.0	1993	10.0	1.3	11.3
1994	0.0	0.0	0.0	1994	7.5	0.0	7.5

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Karluk IRA Council, 1994.

Table 29. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Kodiak City, 1994**SAMPLING DESIGN:****CHAIN REFERRAL**

Total Sample Households	13
Surveyed Households	12
Sampling Fraction	92.3%
Sample Household Members	48
Estimated Household Members	52.0

HARVEST AND USE INFORMATION**Percentage of Sample Households:**

	Sea Lion	Harbor Seal
Used	0.3%	83.3%
Hunted	8.3%	33.3%
Harvested	8.3%	25.0%
Received	0.0%	66.7%
Gave Away	0.0%	25.0%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	1.1	7.6
Total Number Struck and Lost	0.0	0.0
Total Number Taken	1.1	7.6
Number Harvested Per Capita	N/A	N/A

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1.1
Total Take (%)	83%	8.3%	8.3%	83%	8.3%	0.3%	0.3%	8.3%	8.3%	8.3%	8.3%	0.3%		1000%
Cum. Take	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1		
Cum. Take (%)	8.3%	16.7%	25.0%	33.3%	41.7%	50.0%	58.3%	66.7%	75.0%	83.3%	91.7%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	0	0	0	0	2	0	0	1	0	2	0	0	7
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	2	0	0	0	0	2	0	0	1	0	2	0	0	7
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.2	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.1	0.0	2.2	0.0	0.0	7.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	2.2	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.1	0.0	2.2	0.0	0.0	7.6
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.2	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.1	0.0	2.2	0.0		7.6
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	2.2	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.1	0.0	2.2	0.0		7.6
Total Take (%)	28.6%	0.0%	0.0%	0.0%	0.0%	28.6%	0.0%	0.0%	14.3%	0.0%	28.6%	0.0%		100.0%
Cum. Take	2.2	2.2	2.2	2.2	2.2	4.3	4.3	4.3	5.4	5.4	7.6	7.6		
Cum. Take (%)	28.6%	28.6%	28.6%	28.6%	28.6%	57.1%	57.1%	57.1%	71.4%	71.4%	100.0%	100.0%		

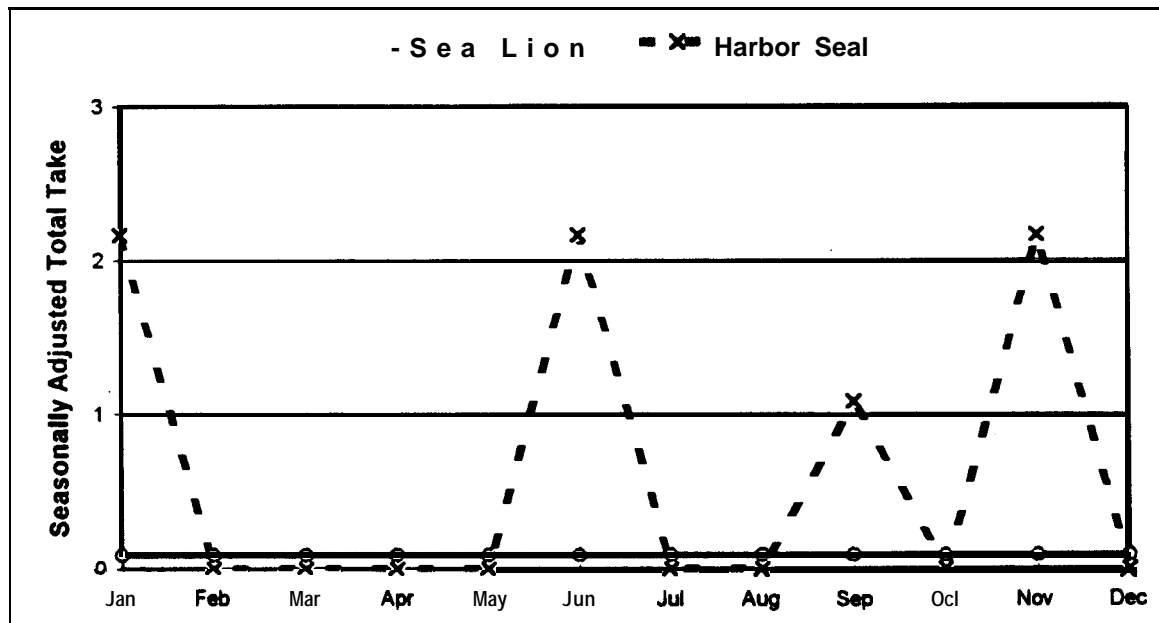
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Kodiak Tribal Council and Kodiak Area Native Association, 1994.

Table 29. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Kodiak City, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Female	0	0.0%	0.0	0.0%	1	14.3%	1.1	14.3%
Adult Unknown Sex	0	0.0%	0.0	0.0%	2	28.6%	2.2	28.6%
Juvenile Male	0	0.0%	0.0	0.0%	3	42.9%	3.3	42.9%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	1	14.3%	1.1	14.3%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	1	100.0%	1.1	100.0%	0	0.0%	0.0	0.0%
Total	1	100.0%	1.1	100.0%	7	100.0%	7.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	36.9	0.0	36.9
1993	0.0	12.7	12.7	1993	6.0	1.0	7.0
1994	1.1	0.0	1.1	1994	7.6	0.0	7.6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Kodiak Tribal Council and Kodiak Area Native Association, 1994.

Table 30. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Larsen Bay, 1994**SAMPLING DESIGN:
CENSUS**

Total Native Households	47
Surveyed Households	42
Sampling Fraction	89.4%
Sample Household Members	120
Estimated Household Members	134.3

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	2.4%	50.0%
Hunted	2.4%	21.4%
Harvested	2.4%	21.4%
Received	0.0%	33.3%
Gave Away	2.4%	19.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	2.2	13.4
Total Number Struck and Lost	0.0	2.2
Total Number Taken	2.2	15.7
Number Harvested Per Capita	0.02	0.10

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	1	1	0	0	0	0	2
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	1	1	0	0	0	0	2
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	2.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	2.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0		2.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0		2.2
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	100.0%	100.0%	100.0%	100.0%		

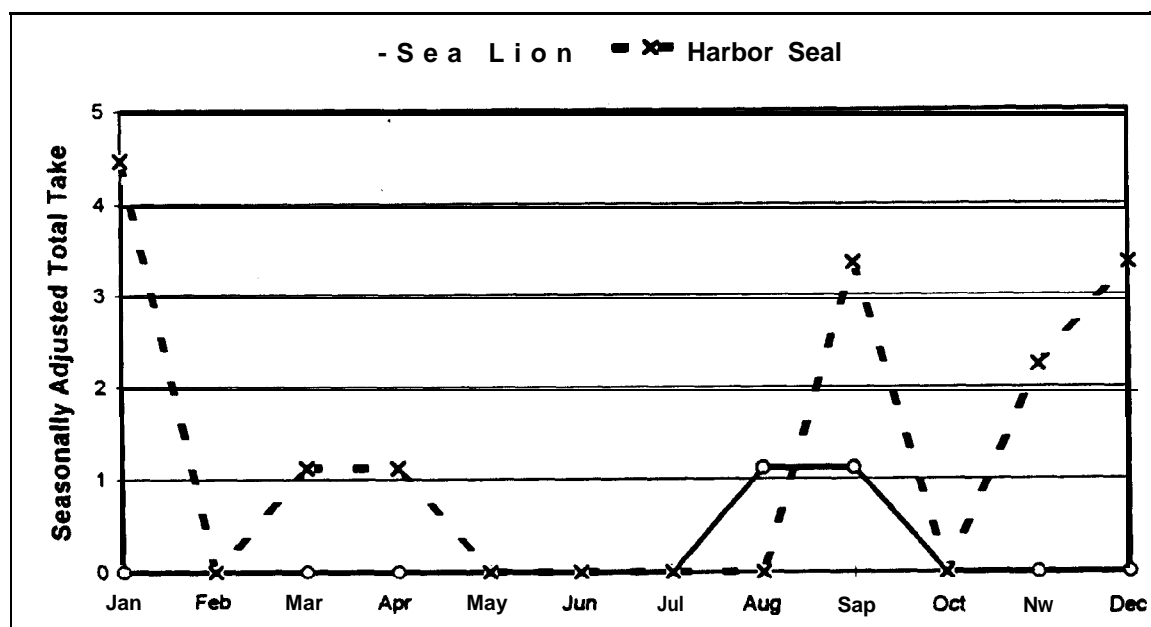
HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	3	0	1	0	0	0	0	0	3	0	2	3	0	12
struck & Lost	1	0	0	1	0	0	0	0	0	0	0	0	0	2
Total Take	4	0	1	1	0	0	0	0	3	0	2	3	0	14
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	3.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0	3.4	0.0	2.2	3.4	0.0	13.4
Struck & Lost	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Total Take	4.5	0.0	1.1	1.1	0.0	0.0	0.0	0.0	3.4	0.0	2.2	3.4	0.0	15.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	3.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0	3.4	0.0	2.2	3.4		13.4
struck & Lost	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		2.2
Total Take	4.5	0.0	1.1	1.1	0.0	0.0	0.0	0.0	3.4	0.0	2.2	3.4		15.7
Total Take (%)	26.6%	0.0%	7.1%	7.1%	0.0%	0.0%	0.0%	0.0%	21.4%	0.0%	14.3%	21.4%		100.0%
Cum. Take	4.5	4.5	5.6	6.7	6.7	6.7	6.7	6.7	10.1	10.1	12.3	15.7		
Cum. Take (%)	26.6%	28.6%	35.7%	42.9%	42.9%	42.9%	42.9%	42.9%	64.3%	64.3%	78.6%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the City of Larsen Bay and Larsen Bay Tribal Council, 1994.

Table 30. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: **Larsen Bay, 1994****HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	50.0%	1.1	50.0%	3	25.0%	3.4	25.0%
Adult Female	0	0.0%	0.0	0.0%	1	8.3%	1.1	8.3%
Adult Unknown Sex	1	50.0%	1.1	50.0%	8	66.7%	9.0	66.7%
Juvenile Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	2	100.0%	2.2	100.0%	12	100.0%	13.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL			
Year	Harvest	Struck ^a Lost	Total Take	Year	Harvest	Struck ^a Lost	Total Take
1992	1.1	0.0	1.1	1992	6.5	0.0	6.5
1993	0.0	0.0	0.0	1993	7.7	5.5	13.2
1994	2.2	0.0	2.2	1994	13.4	2.2	15.7

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Larsen Bay and Larsen Bay Tribal Council, 1994.

Table 31. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Old Harbor, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	29	62	91
	Surveyed Households	22	26	46
	Sampling Fraction	75.9%	41.9%	52.7%
	Sample Household Members	80	64	164
	Estimated Household Members	105.5	200.3	305.8

HARVEST AND USE INFORMATION

<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expenditure):</i>		Sea	Harbor
	<u>Sea</u>	<u>Harbor</u>			<u>Lion</u>	<u>Seal</u>
	<u>Lion</u>	<u>Seal</u>				
Used	100.0%	100.0%		Total Number Harvested	46.2	63.7
Hunted	42.1%	40.6%	Total	Number Struck and Lost	1.3	1.3
Harvested	28.1%	31.0%		Total Number Taken	47.5	65.0
Received	98.6%	97.1%				
Gave Away	252%	30.5%		Number Harvested Per Capita	0.15	0.27

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	1	1	0	0	0	0	0	2	12	8	5	0	31
Struck & Lost	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Take	2	1	1	0	0	0	0	0	2	13	8	5	0	32
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.6	2.4	1.3	0.0	0.0	0.0	0.0	0.0	2.6	20.1	10.5	6.6	0.0	46.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3
Total Take	2.6	2.4	1.3	0.0	0.0	0.0	0.0	0.0	2.6	21.4	10.5	6.6	0.0	47.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.6	2.4	1.3	0.0	0.0	0.0	0.0	0.0	2.6	20.1	10.5	6.6		46.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0		1.3
Total Take	2.6	2.4	1.3	0.0	0.0	0.0	0.0	0.0	2.6	21.4	10.5	6.6		47.5
Total Take(%)	5.5%	5.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	45.0%	22.2%	13.9%		100.0%
Cum. Take	2.6	5.0	6.3	6.3	6.3	6.3	6.3	6.3	9.0	39.4	40.9	47.5		
Cum. Take (%)	5.5%	10.6%	13.3%	13.3%	13.3%	13.3%	13.3%	13.3%	18.9%	63.9%	86.1%	100.0%		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	4	4	7	2	0	1	0	4	6	9	10	10	0	57
Struck & Lost	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total Take	4	4	7	3	0	1	0	4	6	9	10	10	0	58
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.3	6.3	12.4	2.6	0.0	1.3	0.0	5.3	7.9	11.9	15.3	14.2	0.0	83.7
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Take	6.3	6.3	12.4	4.0	0.0	1.3	0.0	5.3	7.9	11.9	15.3	14.2	0.0	85.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.3	6.3	12.4	2.6	0.0	1.3	0.0	5.3	7.9	11.9	15.3	14.2		83.7
Struck & Lost	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.3
Total Take	6.3	6.3	12.4	4.0	0.0	1.3	0.0	5.3	7.9	11.9	15.3	14.2		85.0
Total Take(%)	7.5%	7.5%	14.6%	4.7%	0.0%	16%	0.0%	6.2%	9.3%	14.0%	16.0%	16.8%		100.0%
Cum. Take	6.3	12.7	25.1	29.1	29.1	30.4	30.4	35.7	43.6	55.4	70.7	85.0		
Cum. Take(X)	7.5%	14.9%	29.5%	34.2%	34.2%	35.7%	35.7%	41.9%	51.3%	65.2%	83.2%	100.0%		

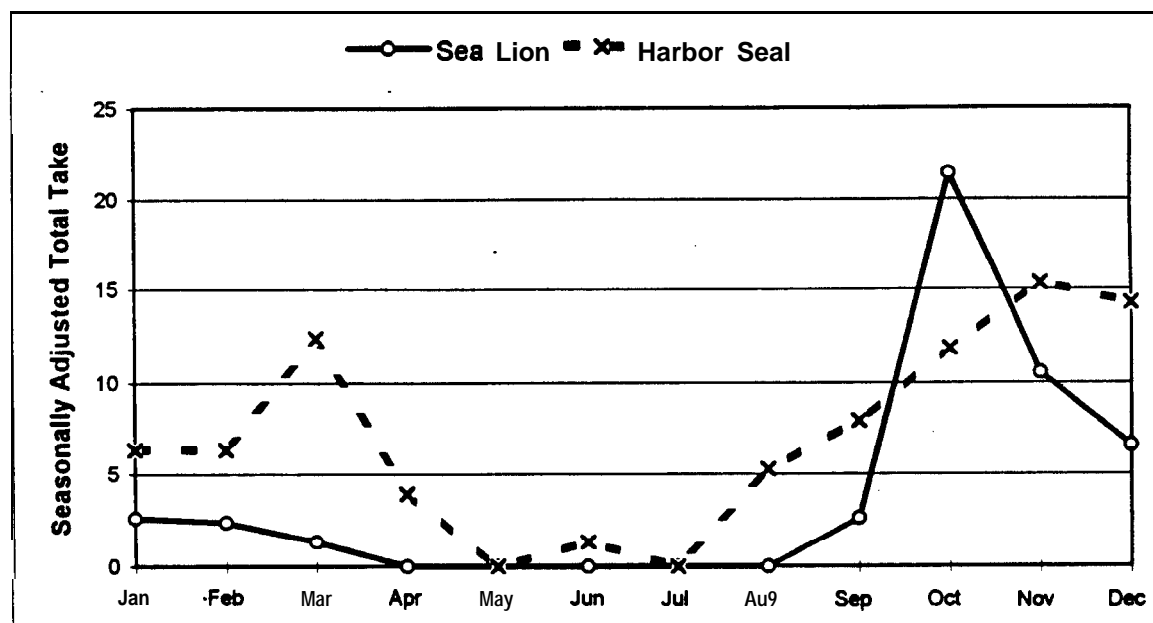
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Old Harbor and Old Harbor Tribal Council, 1994.

Table 31. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Old Harbor, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	5	16.1%	7.7	16.6%	2	36.8%	30.9	36.9%
Adult Female	6	19.4%	9.0	19.4%	10	17.5%	14.2	17.0%
Adult Unknown Sex	4	12.9%	5.3	11.4%	4	7.0%	7.4	6.9%
Juvenile Male	9	29.0%	14.0	30.3%	10	17.5%	14.2	17.0%
Juvenile Female	6	19.4%	9.0	19.4%	11	19.3%	15.6	18.6%
Juvenile Unknown Sex	1	3.2%	1.3	2.9%	1	1.6%	1.3	1.6%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	31	100.0%	46.2	100.0%	57	100.0%	63.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	32.9	13.2	48.1	1992	88.8	5.3	92.1
1993	32.1	1.0	33.2	1993	67.6	2.7	70.3
1994	46.2	1.3	47.5	1994	63.7	1.3	65.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Old Harbor and Old Harbor Tribal Council, 1994.

Table 32. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Ouzinkie, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	61
Surveyed Households	42
Sampling Fraction	68.9%
Sample Household Members	153
Estimated Household Members	222.2

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	11.9%	40.5%
Hunted	4.6%	23.8%
Harvested	4.6%	21.4%
Received	7.1%	31.0%
Gave Away	7.1%	26.6%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	4.4	33.4
Total Number Struck and Lost	2.9	0.0
Total Number Taken	7.3	33.4
Number Harvested Per Capita	0.02	0.15

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	0	0	0	0	0	0	0	1	0	0	0	3
Struck & Lost	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Take	3	1	0	0	0	0	0	0	0	1	0	0	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	4.4
Struck & Lost	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Total Take	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	4.4
Struck & Lost	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Total Take	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.3
Total Take (%)	60.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%		1000%
Cum. Take	4.4	5.6	5.6	5.8	5.6	5.8	5.6	5.8	5.8	7.3	1.3	7.3		
Cum. Take (%)	60.0%	80.0%	80.0%	60.0%	80.0%	80.0%	80.0%	80.0%	100.0%	100.0%	100.0%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	3	1	0	2	1	0	2	3	3	3	3	0	23
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	2	3	1	0	2	1	0	2	3	3	3	3	0	23
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.9	4.4	1.5	0.0	2.9	1.5	0.0	2.9	4.4	4.4	4.4	4.4	0.0	33.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	2.9	4.4	1.5	0.0	2.9	1.5	0.0	2.9	4.4	4.4	4.4	4.4	0.0	33.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.9	4.4	1.5	0.0	2.9	1.5	0.0	2.9	4.4	4.4	4.4	4.4	4.4	33.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	2.9	4.4	1.5	0.0	2.9	1.5	0.0	2.9	4.4	4.4	4.4	4.4	4.4	33.4
Total Take (%)	8.7%	13.0%	4.3%	0.0%	8.7%	4.3%	0.0%	8.7%	13.0%	13.0%	13.0%	13.0%		100.0%
Cum Take	2.9	7.3	8.1	8.7	11.6	13.1	13.1	16.0	20.3	24.7	29.0	33.4		
Cum. Take (%)	8.7%	21.7%	26.1%	26.1%	34.8%	39.1%	39.1%	47.8%	60.9%	73.9%	87.0%	100.0%		

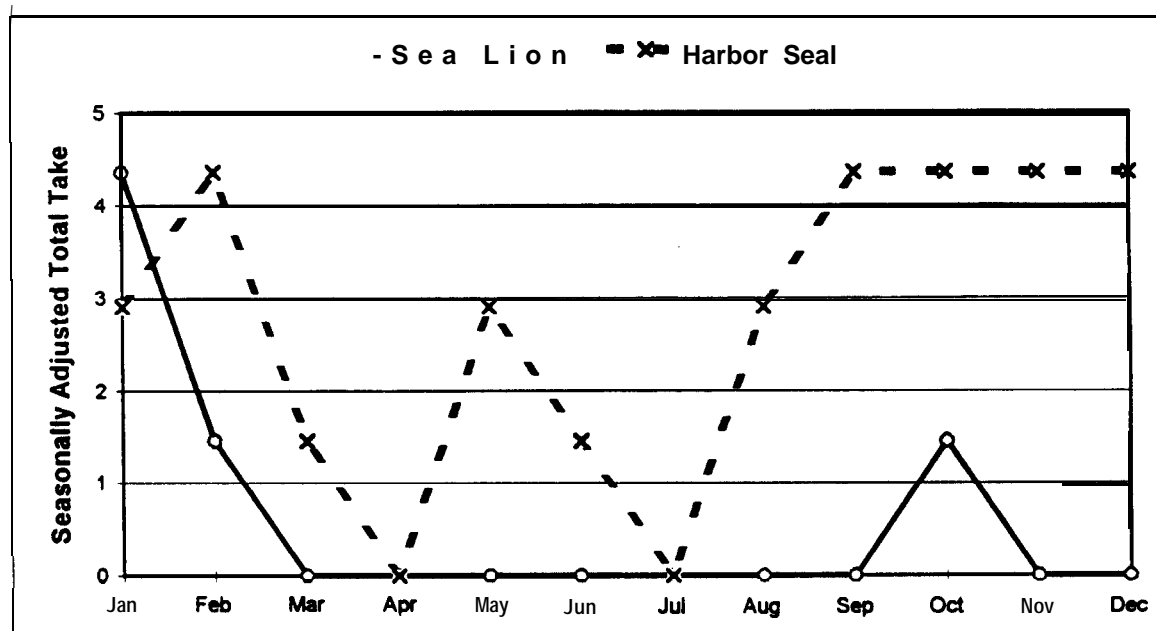
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Ouzinkie Native Corporation, City of Ouzinkie, and Ouzinkie Tribal Council, 1994.

Table 32. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Ouzinkie, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	8	34.6%	11.6	34.6%
Adult Female	0	0.0%	0.0	0.0%	1	4.3%	1.5	4.3%
Adult Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Male	1	33.3%	1.5	33.3%	4	17.4%	5.8	17.4%
Juvenile Female	0	0.0%	0.0	0.0%	1	4.3%	1.5	4.3%
Juvenile Unknown Sex	2	66.7%	2.9	66.7%	9	39.1%	13.1	39.1%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	3	100.0%	4.4	100.0%	23	100.0%	33.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	SW Total	
		Lost	Take			Lost	Take
1992	3.4	0.0	3.4	1992	21.6	1.1	23.0
1993	5.4	2.2	7.6	1993	41.2	6.7	49.8
1994	4.4	2.9	7.3	1994	33.4	0.0	33.4

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Ouzinkie Native Corporation, City of Ouzinkie, and Ouzinkie Tribal Council, 1994.

Table 33. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Port Lions, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	8	47	55
	Surveyed Households	7	35	42
	Sampling Fraction	87.5%	74.5%	76.4%
	Sample Household Members	28	100	128
	Estimated Household Members	32.0	134.3	166.3

HARVEST AND USE INFORMATION

Percentage of Native Households:			Estimated Community Harvest and Take (Expanded):		<u>Sea</u>	<u>Harbor</u>
	<u>Sea</u>	<u>Harbor</u>			<u>Lion</u>	<u>Seal</u>
	<u>Lion</u>	<u>Seal</u>				
Used	2.1 %	18.1%	Total Number Harvested		0.0	8.0
Hunted	0.0%	8.7%	Total Number Struck and Lost		0.0	0.0
Harvested	0.0 %	8.2 %	Total Number Taken		0.0	8.0
Received	0.0%	18.1%				
Gave Away	0.0%	8.7%	Number Harvested Per Capita		0.00	0.05

SEA LION HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	0	1	0	2	0	0	0	0	1	1	0	7
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	1	1	0	1	0	2	0	0	0	0	1	1	0	7
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	0.0	1.1	0.0	2.3	0.0	0.0	0.0	0.0	1.1	1.1	0.0	8.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	1.1	1.1	0.0	1.1	0.0	2.3	0.0	0.0	0.0	0.0	1.1	1.1	0.0	8.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	0.0	1.1	0.0	2.3	0.0	0.0	0.0	0.0	1.1	1.1		8.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	1.1	1.1	0.0	1.1	0.0	2.3	0.0	0.0	0.0	0.0	1.1	1.1		8.0
Total Take (%)	14.3%	14.3%	0.0%	14.3%	0.0%	28.6%	0.0%	0.0%	0.0%	0.0%	14.3%	14.3%		100.0%
Cum. Take	1.1	2.3	2.3	3.4	3.4	5.7	5.7	5.7	5.7	5.7	6.9	8.0		
Cum. Take (%)	14.3%	28.6%	28.6%	42.9%	42.9%	71.4%	71.4%	71.4%	71.4%	71.4%	85.7%	100.0%		

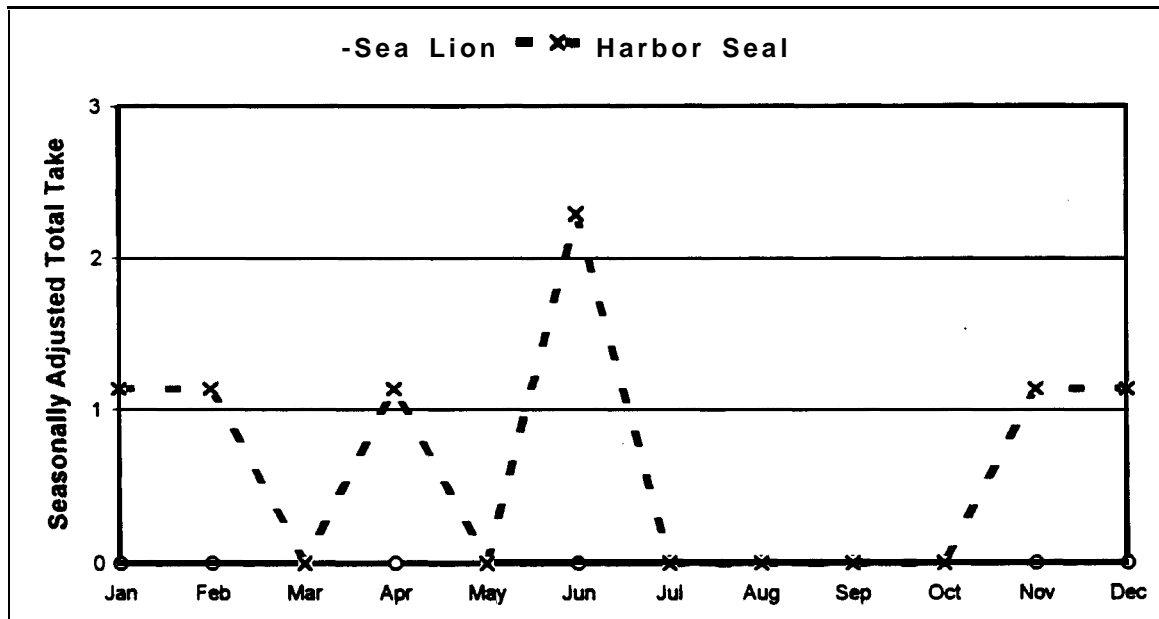
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Port Lions Tribal Council and City of Port Lions, 1994.

Table 33. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Port Lions. 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	1	14.3%	1.1	14.3%
Adult Unknown Sex	0	—	0.0	—	1	14.3%	1.1	14.3%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	4	57.1%	4.6	57.1%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	1	14.3%	1.1	14.3%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown' Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	7	100.0%	8.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	1.1	2.2	3.3	1992	36.9	2.2	39.1
1993	4.0	1.0	5.0	1993	26.0	1.0	27.0
1994	0.0	0.0	0.0	1994	6.0	0.0	8.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Port Lions Tribal Council and City of Port Lions, 1994.

Table 34. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Chignik Bay, 1994**SAMPLING DESIGN:
CENSUS**

Total Native Households	27
Surveyed Households	24
Sampling Fraction	88.9%
Sample Household Members	64
Estimated Household Members	72.0

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	0.0%	8.3%
Hunted	0.0%	8.3%
Harvested	0.0%	8.3%
Received	0.0%	4.2%
Gave Away	0.0%	8.3%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	3.4
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	3.4
Number Harvested Per Capita	0.00	0.05

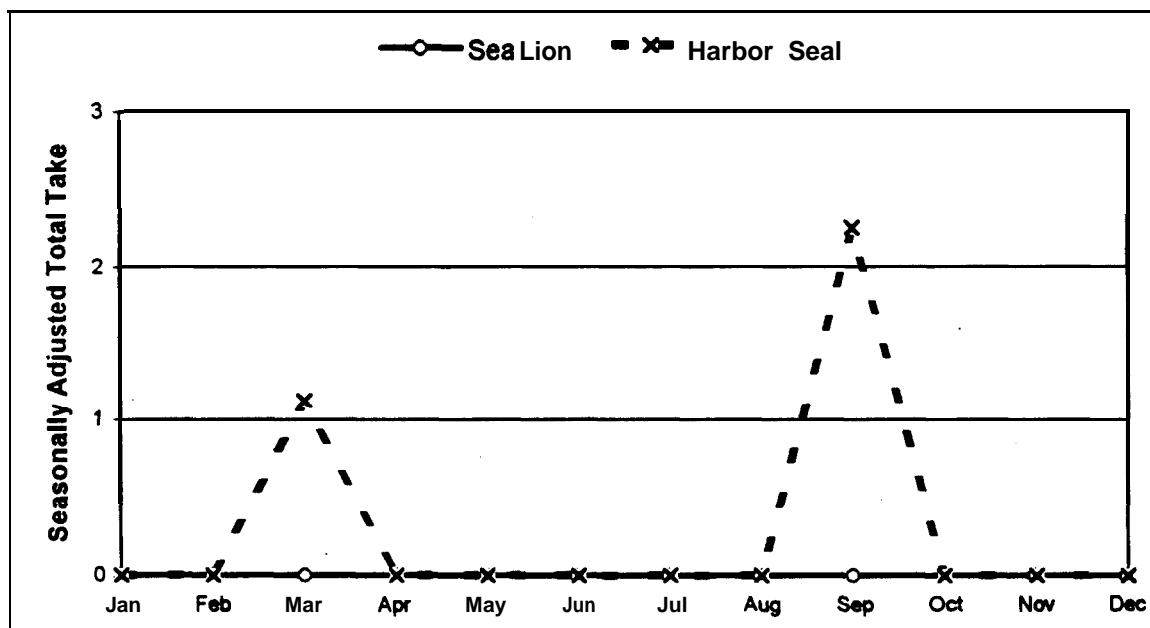
SEA LION HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY BAWLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	0	0	0	0	2	0	0	0	0	3
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	1	0	0	0	0	0	2	0	0	0	0	3
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	3.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	3.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0		3.4
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0		3.4
Total Take (%)	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	3.4	3.4	3.4	3.4		
Cum Take (%)	00%	0.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	100.0%	100.0%	100.0%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chignik Bay Traditional Village Council, 1994.

Table 34. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Chignik Bay, 1994**HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	100.0%	3.4	100.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	3	100.0%	3.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	2.4	1.2	3.6
1993	0.0	0.0	0.0	1993	6.3	5.0	11.3
1994	0.0	0.0	0.0	1994	3.4	0.0	3.4

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chignik Bay Traditional Village Council, 1994

Table 35. SEA LION AND HARBOR SEAL HARVEST ESTIMATES: Chignik Lagoon, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	20
Surveyed Households	20
Sampling Fraction	100.0%
Sample Household Members	64
Estimated Household Members	64.0

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
used	0.0%	5.0%
Hunted	0.0%	5.0%
Harvested	0.0%	0.0%
Received	0.0%	5.0%
Gave Away	0.0%	0.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	0.0
Total Number Struck and Lost	0.0	1.0
Total Number Taken	0.0	1.0
Number Harvested Per Capita	0.00	0.00

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total Take	0	1	0	0	0	0	0	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Total Take	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0
Total Take	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0
Total Take (%)	00%	100.0%	00%	00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Cum Take (%)	00%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

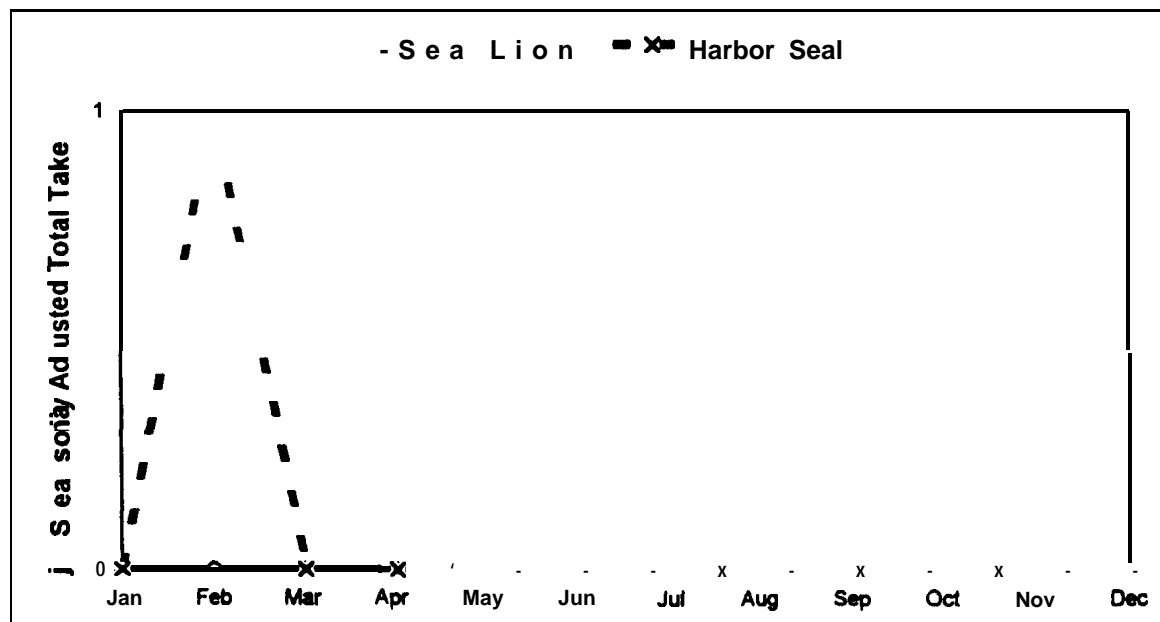
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor system for Sea Lions and Harbor Seals in Alaska with assistance from the Chignik Lagoon Traditional Vii Council, 1994

Table 35. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Chignik Lagoon, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	—	0.0	—
Adult Female	0	—	0.0	—	0	—	0.0	—
Adult Unknown Sex	0	—	0.0	—	0	—	0.0	—
Juvenile Male	0	—	0.0	—	0	—	0.0	—
Juvenile Female	0	—	0.0	—	0	—	0.0	—
Juvenile Unknown Sex	0	—	0.0	—	0	—	0.0	—
Pup Male	0	—	0.0	—	0	—	0.0	—
Pup Female	0	—	0.0	—	0	—	0.0	—
Pup Unknown Sex	0	—	0.0	—	0	—	0.0	—
Male Unknown Age	0	—	0.0	—	0	—	0.0	—
Female Unknown Age	0	—	0.0	—	0	—	0.0	—
Unknown Sex and Age	0	—	0.0	—	0	—	0.0	—
Total	0	—	0.0	—	0	—	0.0	—

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	4.0	0.0	4.0
1993	1.1	0.0	1.1	1993	4.3	1.1	5.3
1994	0.0	0.0	0.0	1994	0.0	1.0	1.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Chignik Lagoon Traditional Village Council, 1994.

Table 36. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Chignik Lake, 199**SAMPLING DESIGN:
CENSUS**

Total Native Households	39
Surveyed Households	30
Sampling Fraction	76.996
Sample Household Members	116
Estimated Household Members	153.4

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
used	0.0%	76.7%
Hunted	0.0%	13.3%
Harvested	0.0%	10.0%
Received	0.0%	76.7%
Gave Away	0.0%	50.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	20.8
Total Number Struck and Lost	0.0	1.3
Total Number Taken	0.0	22.1
Number Harvested Per Capita	0.00	0.14

SEA LION HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	2	5	6	2	1	0	16
Struck & Lost	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total Take	0	0	0	0	0	0	1	2	5	6	2	1	0	17
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.5	7.6	2.6	1.3	0.0	20.8
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6	6.5	7.6	2.6	1.3	0.0	22.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.5	7.0	2.6	1.3		20.8
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0		1.3
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6	6.5	7.8	2.6	1.3		22.1
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	11.6%	29.4%	35.3%	11.6%	5.9%		100.0%
Cum. Take	0.0	0.6	0.0	0.0	0.0	0.0	1.3	3.9	10.4	18.2	20.8	22.1		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	17.6%	47.1%	62.4%	94.1%	100.0%		

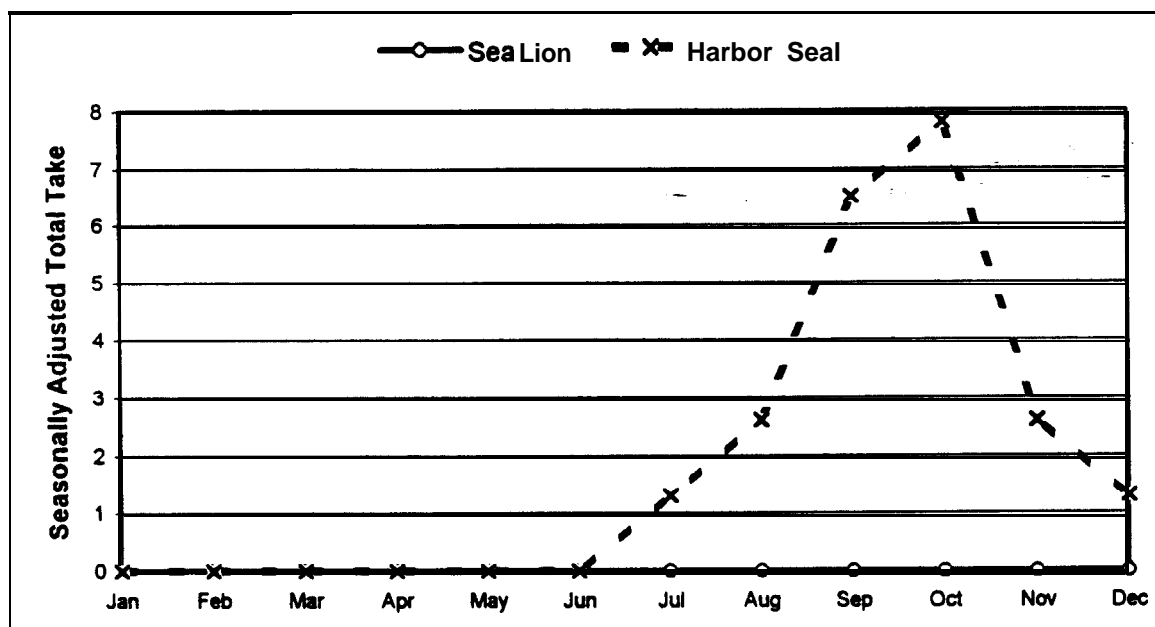
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Chignik Lake Traditional Village Council, 1994.

Table 36. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Chignik Lake, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	4	25.0%	5.2	25.0%
Adult Female	0	—	0.0	—	2	12.5%	2.6	12.5%
Adult Unknown Sex	0	—	0.0	—	6	37.5%	7.0	37.5%
Juvenile Male	0	—	0.0	—	1	6.3%	1.3	6.3%
Juvenile Female	0	—	0.0	—	2	12.5%	2.6	12.5%
Juvenile Unknown Sex	0	—	0.0	—	1	6.3%	1.3	6.3%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	16	100.0%	20.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/Lost	Total Take	Year	Harvest	Struck/Lost	Total Take
1992	0.0	0.0	0.0	1992	6.3	2.1	10.3
1993	0.0	0.0	0.0	1993	15.2	5.5	20.6
1994	0.0	0.0	0.0	1994	20.8	1.3	22.1

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Chignik Lake Traditional Village Council, 1994.

Table 37. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: False Pass, 1994**SAMWNG DESIGN:
CENSUS**

Total Native Households	21
Surveyed Households	20
Sampling Fraction	95.2%
Sample Household Members	63
Estimated Household Members	66.2

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
used	0.0%	65.0%
Hunted	0.0%	3.0%
Harvested	0.0%	25.0%
Received	0.0%	45.0%
Gave Away	0.0%	30.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	12.6
Total Number SW and Lost	0.0	2.1
Total Number Taken	0.0	14.7
Number Harvested Per Capita	0.00	0.19

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—				
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—				

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	1	3	0	0	1	0	1	2	2	1	0	0	12
Struck & Lost	0	0	1	0	0	0	0	0	0	0	0	0	1	2
Total Take	1	1	4	0	0	1	0	1	2	2	1	0	1	14
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	3.2	0.0	0.0	1.1	0.0	1.1	2.1	2.1	1.1	0.0	0.0	12.6
Struck & Lost	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.1
Total Take	1.1	1.1	4.2	0.0	0.0	1.1	0.0	1.1	2.1	2.1	1.1	0.0	1.1	14.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	1.1	3.2	0.0	0.0	1.1	0.0	1.1	2.1	2.1	1.1	0.0		12.6
Struck & Lost	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		2.1
Total Take	1.1	1.1	5.3	0.0	0.0	1.1	0.0	1.1	2.1	2.1	1.1	0.0		14.7
Total Take (%)	7.1%	7.1%	35.7%	0.0%	0.0%	7.1%	0.0%	7.1%	14.3%	14.3%	7.1%	0.0%		100.0%
Cum. Take	1.1	2.1	7.4	7.4	7.4	0.4	0.4	9.5	11.6	13.7	14.7	14.7		
Cum. Take (%)	71%	143%	50.0%	50.0%	50.0%	57.1%	57.1%	64.3%	70.6%	92.9%	100.0%	100.0%		

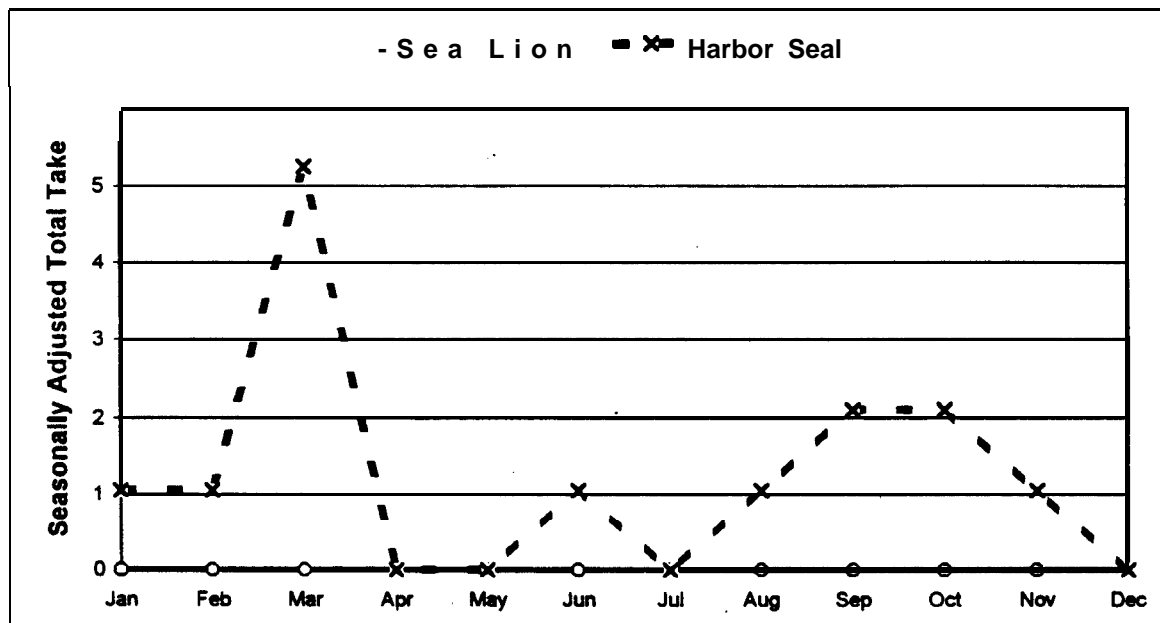
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the False Pass Tribal Council and City of False Pass, 1994

Table 37. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: False Pass, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	25.0%	3.2	26.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	6	50.0%	6.3	50.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	3	25.0%	3.2	25.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	12	100.0%	12.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	18.0	0.0	18.0
1993	0.0	0.0	0.0	1993	19.0	0.0	19.0
1994	0.0	0.0	0.0	1994	12.6	2.1	14.7

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Fake Pass Tribal Council and City of False Pass, 1994

Table 38. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Ivanof Bay, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	8
Surveyed Households	6
Sampling Fraction	75.0%
Sample Household Members	26
Estimated Household Members	34.7

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	0.0 %	100.0 %
Hunted	0.0 %	100.0 %
Harvested	0.0 %	100.0 %
Recked	0.0 %	83.3 %
Gave Away	0.0 %	83.3 %

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	12.0
Total Number Struck and Lost	0.0	1.3
Total Number Taken	0.0	13.3
Number Harvested Per Capita	0.00	0.35

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shuck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	0	0	1	0	0	0	0	0	1	4	2	0	9
struck & Lost	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Take	1	0	0	1	0	0	0	0	0	2	4	2	0	10
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.3	5.3	2.1	0.0	12.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3
Total Take	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.7	5.3	2.7	0.0	13.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.3	5.3	2.7	0.0	12.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3
Total Take	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.7	5.3	2.7	0.0	13.3
Total Take (%)	10.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	40.0%	20.0%	0.0%	100.0%
Cum. Take	1.3	1.3	1.3	2.7	2.7	2.7	2.7	2.7	2.7	5.3	10.7	13.3	0.0	13.3
Cum. Take (%)	10.0%	10.0%	10.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	40.0%	80.0%	100.0%	0.0%	100.0%

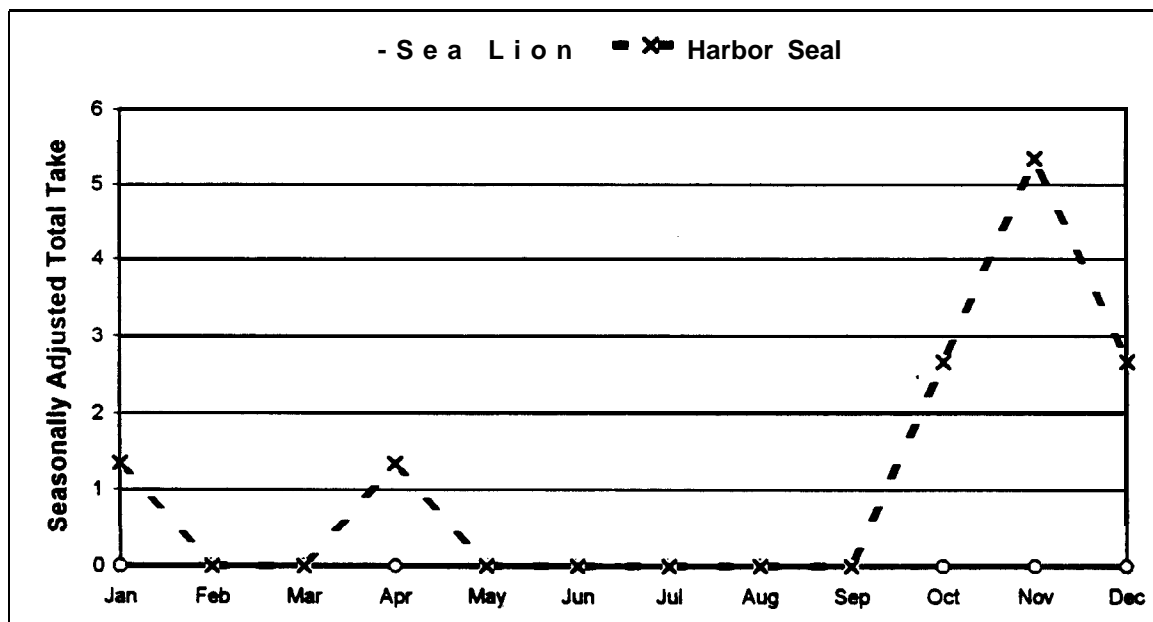
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Ivanof Bay Traditional Village Council, 1994

Table 38. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Ivanof Bay, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	2	22.2%	2.7	22.2%
Adult Unknown Sex	0	—	0.0	—	3	33.3%	4.0	33.3%
Juvenile Male	0	—	0.0	—	1	11.1%	1.3	11.1%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	3	33.3%	4.0	33.3%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	9	100.0%	12.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	10.0	1.0	11.0
1993	2.3	1.2	3.5	1993	16.3	4.7	21.0
1994	0.0	0.0	0.0	1994	12.0	1.3	13.3

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Ivanof Bay Traditional Village Council, 1994

Table 39. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: King Cove, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	14	104	118
	Surveyed Households	13	30	43
	Sampling Fraction	92.9%	28.8%	36.4%
	Sample Household Members	63	99	152
	Estimated Household Members	67.1	343.2	400.3

HARVEST AND USE INFORMATION

Percentage of Native Households:			<i>Estimated Community Harvest and Take (Expanded):</i>		
	<u>Sea</u>	<u>Harbor</u>		<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
used	2.7%	19.1%	Total Number Harvested	3.2	20.9
Hunted	2.7%	9.3%	Total Number Struck and Lost	1.1	1.1
Harvested	2.7%	9.3%	Total Number Taken	4.3	22.0
Received	0.0%	10.6%			
Gave Away	0.9%	0.4%	Number Harvested Per Capita	0.01	0.05

SEA LION HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	2	0	0	0	0	0	0	0	0	3
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total Take	0	0	1	0	2	0	0	0	0	0	0	0	1	4
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Total Take	0.0	0.0	1.1	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0		3.2
Struck & Lost	0.0	0.0	0.4	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.1
Total Take	0.0	0.0	1.4	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0		4.3
Total Take (%)	0.0%	0.0%	33.3%	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.4	1.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		
Cum. Take (%)	0.0%	0.0%	33.3%	33.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%

HARBOR SEAL HARVEST BY MONTH													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	0	3	0	2	0	2	6	1	0	0	15
Struck & Lost	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Take	0	0	1	0	3	0	2	0	2	6	2	0	0	16
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	5.6	0.0	2.2	0.0	2.2	6.9	1.1	0.0	0.0	20.9
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1
Total Take	0.0	0.0	1.1	0.0	5.6	0.0	2.2	0.0	2.2	6.9	2.2	0.0	0.0	22.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.1	0.0	5.6	0.0	2.2	0.0	2.2	6.9	1.1	0.0		20.9
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0		1.1
Total Take	0.0	0.0	1.1	0.0	5.6	0.0	2.2	0.0	2.2	6.9	2.2	0.0		22.0
Total Take (%)	0.0%	0.0%	4.9%	0.0%	25.5%	0.0%	9.8%	0.0%	9.6%	40.2%	9.6%	0.0%		100.0%
Cum Take	0.0	0.0	1.1	1.1	6.7	6.7	6.9	6.9	11.0	19.9	22.0	22.0		
Cum Take (%)	0.0%	0.0%	4.9%	4.9%	30.4%	30.4%	40.2%	40.2%	50.0%	90.0%	100.0%	100.0%		

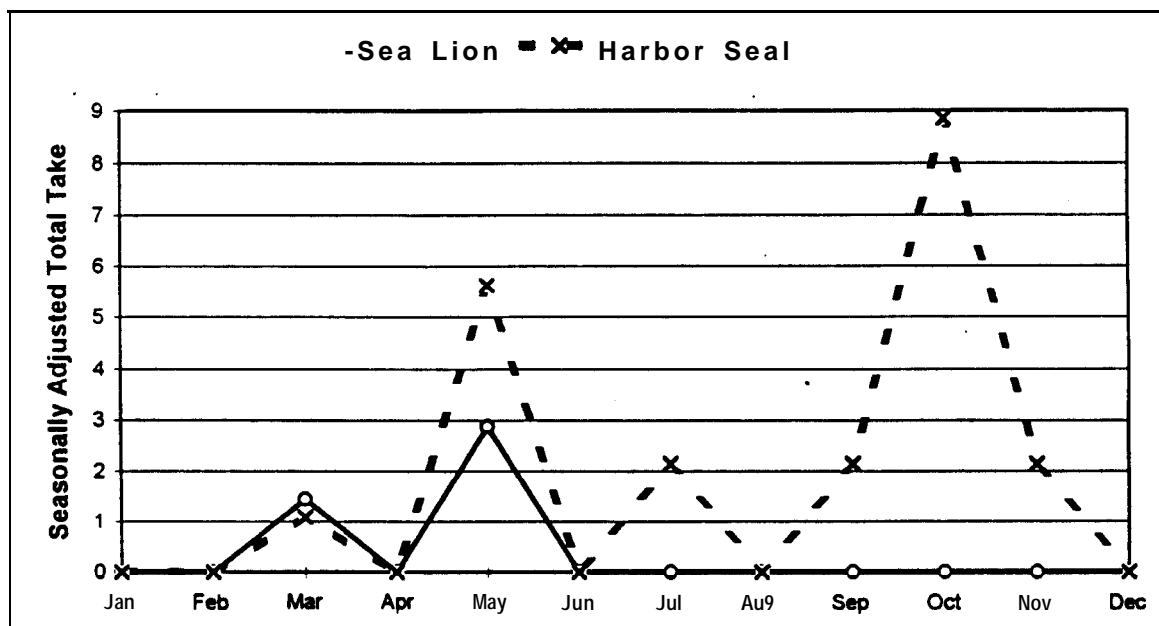
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Agdaagux Tribe of King Cove, Belofski Vii Council, and City of Kii Cove, 1994

Table 39. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: King Cove, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	33.3%	1.1	33.3%	6	40.0%	6.5	30.9%
Adult Female	2	66.7%	2.2	66.7%	5	33.3%	7.0	37.1%
Adult Unknown Sex	0	0.0%	0.0	0.0%	1	6.7%	1.1	5.1%
Juvenile Male	0	0.0%	0.0	0.0%	3	20.0%	5.6	26.8%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	3	100.0%	3.2	100.0%	15	100.0%	20.9	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	1.3	0.0	1.3	1992	26.0	6.7	32.7
1993	1.2	0.0	1.2	1993	12.6	3.5	16.3
1994	3.2	1.1	4.3	1994	20.9	1.1	22.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Agdaagux Tribe of King Cove, Belofski Vii Council, and City of King Cove, 1994.

Table 40. SE4 LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Perryville, 1984**SAMPUNG DESIGN:****CENSUS**

Total Native Households	31
Surveyed Households	22
Sampling Fraction	71.0%
Sample Household Memben	76
Estimated Household Members	107.1

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
used	22.7%	06.4%
Hunted	18.2%	68.2%
Harvested	4.5%	22.7%
Received	22.7%	77.3%
Gave Away	10.2%	27.3%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal
Total Number Harvested	1.4	21.1
Total Number Struck and Lost	0.0	0.0
Total Number Taken	1.4	21.1
Number Harvested Per Capita	0.01	0.20

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Halves!	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	1	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Total Take(%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cum.Take	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

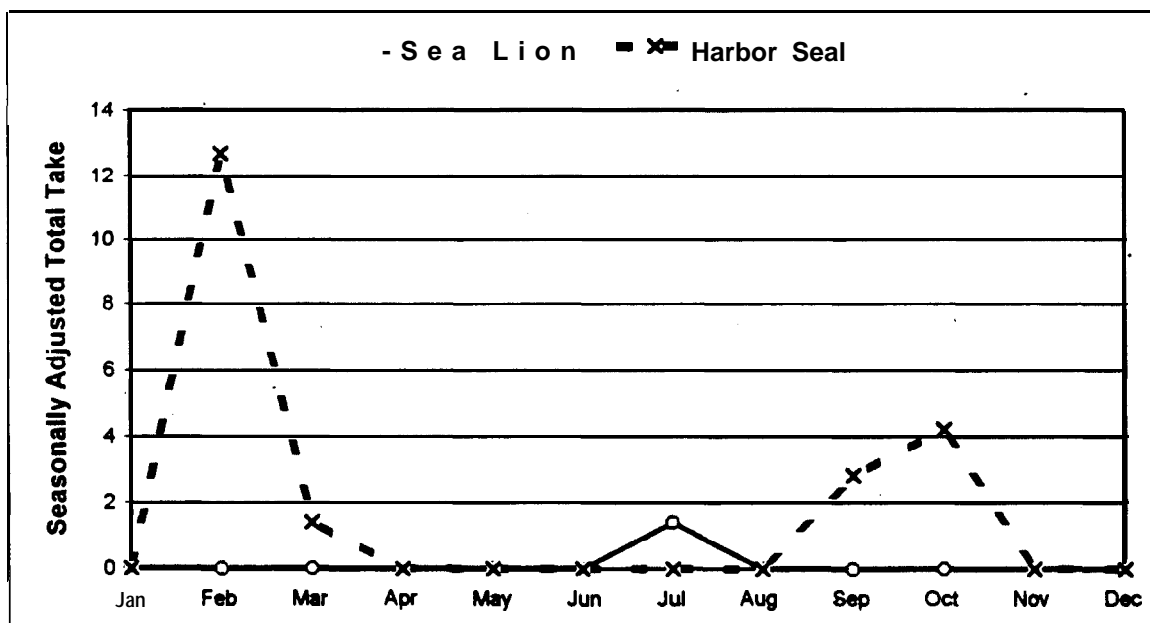
HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	9	1	0	0	0	0	0	2	3	0	0	0	15
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	9	1	0	0	0	0	0	2	3	0	0	0	15
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	12.7	1.4	0.0	0.0	0.0	0.0	0.0	2.6	4.2	0.0	0.0	0.0	21.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	12.7	1.4	0.0	0.0	0.0	0.0	0.0	2.6	4.2	0.0	0.0	0.0	21.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	12.7	1.4	0.0	0.0	0.0	0.0	0.0	2.6	4.2	0.0	0.0	0.0	21.1
Struck&Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	12.7	1.4	0.0	0.0	0.0	0.0	0.0	2.6	4.2	0.0	0.0	0.0	21.1
Total Take (X)	0.0%	60.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	20.0%	0.0%	0.0%	0.0%	100.0%
Cum.Take	0.0	12.7	14.1	14.1	14.1	14.1	14.1	14.1	16.9	21.1	21.1	21.1	21.1	
Cum Take(%)	0.0%	60.0%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	80.0%	100.0%	100.0%	100.0%	100.0%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Perryville Traditional Village Council, 1994

Table 40. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Perryville, 1994*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	1	100.0%	1.4	100.0%	3	20.0%	4.2	20.0%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	1	6.7%	1.4	6.7%
Juvenile Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	1	6.7%	1.4	6.7%
Pup Male	0	0.0%	0.0	0.0%	1	6.7%	1.4	6.7%
Pup Female	0	0.0%	0.0	0.0%	2	13.3%	2.8	13.3%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	1	100.0%	1.4	100.0%	7	46.7%	9.9	46.7%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	1.1	0.0	1.1	1992	8.9	2.2	11.1
1993	0.0	0.0	0.0	1993	12.6	2.1	15.0
1994	1.4	0.0	1.4	1994	21.1	0.0	21.1

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Perryville Traditional Village Council, 1994.

Table 41. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Sand Point, 1994

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	14	129	143
	Surveyed Households	12	30	42
	Sampling Fraction	85.7%	23.3%	29.4%
	Sample Household Members	51	92	143
	Estimated Household Members	59.5	395.6	455.1

HARVEST AND USE INFORMATION

Percentage of Native Households:			Estimated Community Harvest and Take (Expanded.):		
	<u>Sea Lion</u>	<u>Harbor Seal</u>		<u>Sea Lion</u>	<u>Harbor Seal</u>
used	0.0%	13.9%	Total Number Harvested	0.0	7.0
Hunted	0.0%	5.5%	Total Number Struck and Lost	0.0	4.3
Harvested	0.0%	4.6%	Total Number Taken	0.0	12.1
Received	0.0%	9.3%			
Gave Away	0.0%	0.8%	Number Harvested Per Capita	0.00	0.02

SEA LION HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		—
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		—

HARBOR SEAL HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	1	1	0	1	1	0	4
Struck & Lost	0	0	0	0	0	0	0.0		0	0	0		0.1	1
Total Take	0	0	0	0	0	0	0		11	0	1	1	1	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	1.2	4.3	0.0	7.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	1.2	4.3	4.3	12.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	1.2	4.3		7.8
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.6	2.4		4.3
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	0.0	1.8	6.7		12.1
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%	0.0%	15.0%	55.1%		100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.6	3.6	5.4	12.1		
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.0%	29.9%	29.9%	44.9%	100.0%		

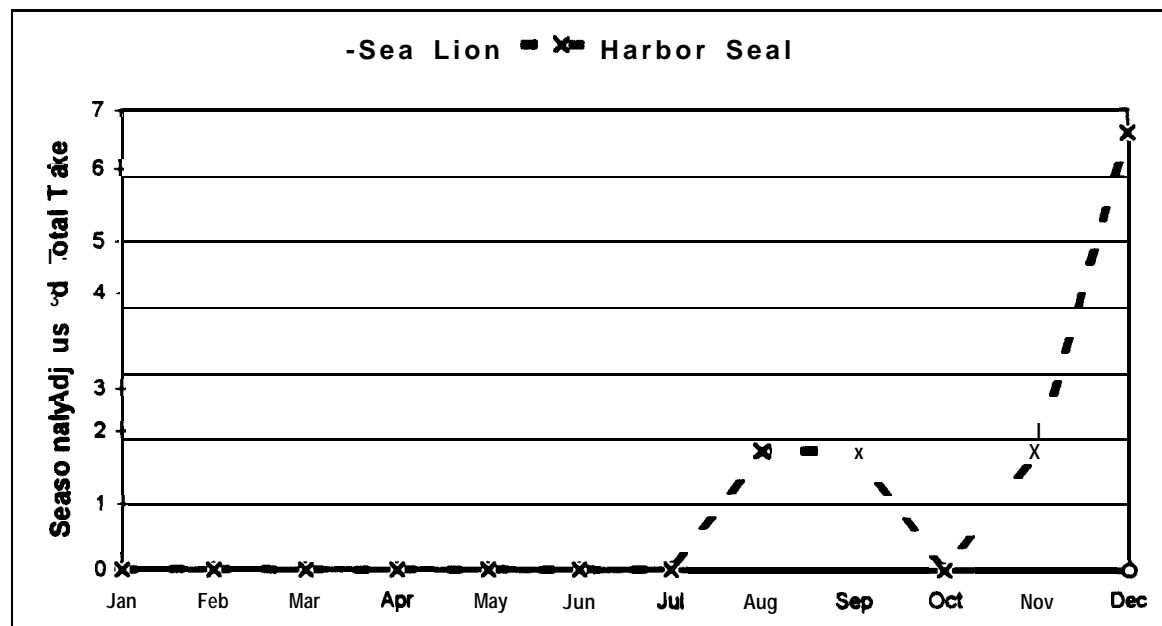
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Sand Point, Unga Tribal Council, and Gagan Tayagungi Tribe of Sand Point, 1994.

Table 41. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Sand Point, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	1	25.0%	4.3	55.1%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	3	75.0%	3.5	44.9%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	4	100.0%	7.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Lost	Total	Year	Harvest	Lost	Total
1992	0.0	0.0	0.0	1992	37.9	0.0	37.9
1993	0.0	0.0	0.0	1993	13.3	1.2	14.4
1994	0.0	0.0	0.0	1994	7.6	4.3	12.1

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of Sand Point, Unga Tribal Council, and Qagan Tayagungi Tribe of Sand Point, 1994.

Table 42 SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Akutan, 1994

SAMPLING DESIGN:

CENSUS

Total Native Households	30
Surveyed Households	28
Sampling Fraction	86.7%
Sample Household Members	70
Estimated Household Members	80.8

HARVEST AND USE INFORMATION

Percentage of Native Households:

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
used	73.1%	76.9%
Hunted	19.2%	11.5%
Harvested	15.4%	11.5%
Received	69.2%	73.1%
Gave Away	15.4%	15.4%

**Estimated Community Harvest
and Take (Expanded):**

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Total Number Harvested	12.7	13.8
Total Number Struck and Lost	3.5	3.5
Total Number Taken	16.2	17.3
Number Harvested Per Capita	0.16	0.17

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	0	0	3	0	2	0	1	0	3	0	1	0	11
Struck & Lost	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Total Take	1	0	0	3	0	5	0	1	0	3	0	1	0	14
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.2	0.0	0.0	3.5	0.0	2.3	0.0	1.2	0.0	3.5	0.0	1.2	0.0	12.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Total Take	1.2	0.0	0.0	3.5	0.0	5.6	0.0	1.2	0.0	3.5	0.0	1.2	0.0	16.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.2	0.0	0.0	3.5	0.0	2.3	0.0	1.2	0.0	3.5	0.0	1.2		12.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0		3.5
Total Take	1.2	0.0	0.0	3.5	0.0	5.8	0.0	1.2	0.0	3.5	0.0	1.2		16.2
Total Take (%)	7.1%	0.0%	0.0%	21.4%	0.0%	35.7%	0.0%	7.1%	0.0%	21.4%	0.0%	7.1%		100.0%
Cum. Take	1.2	1.2	1.2	4.6	4.6	10.4	10.4	11.5	11.5	15.0	15.0	16.2		
Cum. Take (%)	7.1%	7.1%	7.1%	28.6%	28.6%	64.3%	64.3%	71.4%	71.4%	92.9%	92.9%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	1	1	1	1	0	0	1	2	1	1	1	0	12
Struck & Lost	0	0	1	0	0	2	0	0	0	0	0	0	0	3
Total Take	2	1	2	1	1	2	0	1	2	1	1	1	0	15
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.3	1.2	1.2	1.2	1.2	0.0	0.0	1.2	2.3	1.2	1.2	1.2	0.0	13.8
Struck & Lost	0.0	0.0	1.2	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Total Take	2.3	1.2	2.3	1.2	1.2	2.3	0.0	1.2	2.3	1.2	1.2	1.2	0.0	17.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.3	1.2	1.2	1.2	1.2	0.0	0.0	1.2	2.3	1.2	1.2	1.2		13.8
Struck & Lost	0.0	0.0	1.2	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0		3.5
Total Take	2.3	1.2	2.3	1.2	1.2	2.3	0.0	1.2	2.3	1.2	1.2	1.2		17.3
Total Take (%)	13.3%	6.7%	13.3%	6.7%	6.7%	13.3%	0.0%	6.7%	13.3%	8.7%	6.7%	6.7%		100.0%
Cum. Take	2.3	3.5	5.8	6.9	8.1	10.4	10.4	11.5	13.8	15.0	16.2	17.3		
Cum. Take (%)	13.3%	20.0%	33.3%	40.0%	46.7%	60.0%	60.0%	68.7%	80.0%	86.7%	93.3%	100.0%		

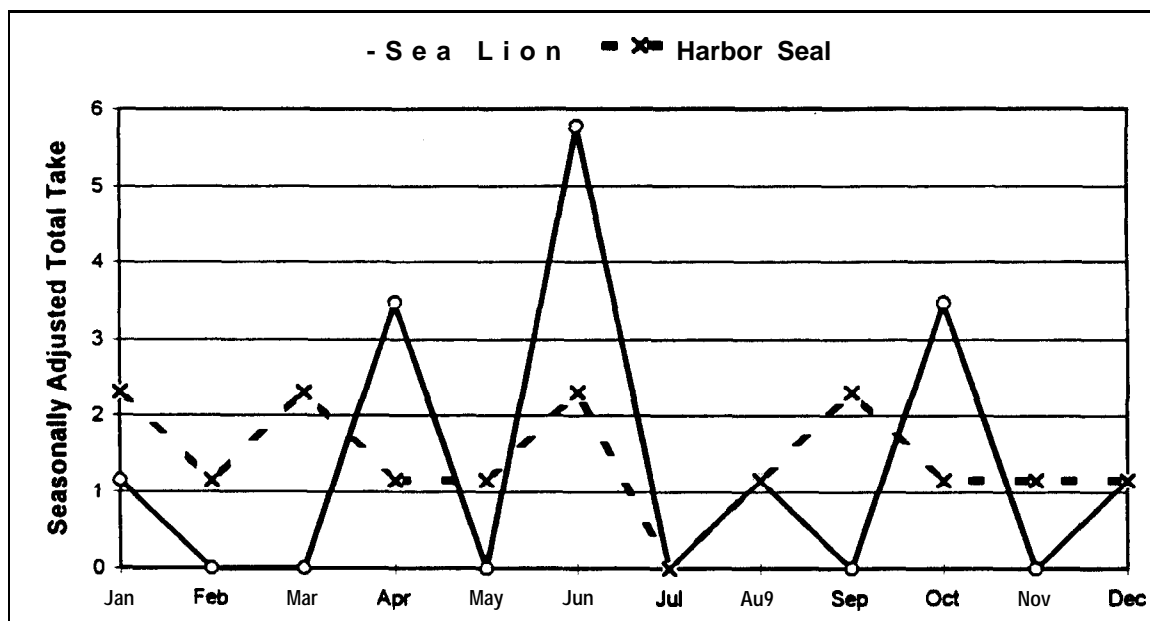
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Akutan Traditional Vii Council, City of Akutan, and Akutan Corporation, 1994.

Table 42. (cont.) SE4 LION & HARBOR SEAL HARVEST **ESTIMATES**: Akutan, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	6	54.5%	6.9	54.5%	7	58.3%	8.1	58.3%
Adult Female	1	9.1%	1.2	9.1%	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Male	3	27.3%	3.5	27.3%	4	33.3%	4.6	33.3%
Juvenile Female	1	9.1%	1.2	9.1%	1	8.3%	1.2	8.3%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Male	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	11	100.0%	12.7	100.0%	12	100.0%	13.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED **COMMUNITY** HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	25.7	4.3	30.0	1992	12.9	4.3	17.1
1993	14.5	6.9	23.4	1993	15.6	4.5	20.1
1994	12.7	3.5	16.2	1994	13.6	3.5	17.3

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Akutan Traditional Village Council, City of Akutan, and Akutan Corporation, 1994.

Table 43. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Atka, 1994**SAMPLING DESIGN:
CENSUS**

Total Native Households	26
Surveyed Households	24
Sampling Fraction	92.3%
Sample Household Members	77
Estimated Household Members	83.4

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	100.0%	100.0%
Hunted	54.2%	70.8%
Harvested	37.5%	62.5%
Received	91.7%	83.3%
Gave Away	37.5%	54.2%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	45.5	73.7
Total Number Struck and Lost	8.7	8.7
Total Number Taken	54.2	82.3
Number Harvested Per Capita	0.55	0.88

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	6	2	5	8	2	1	1	7	1	1	5	1	2	42
Struck & Lost	0	0	2	1	0	0	0	0	0	0	0	0	5	8
Total Take	6	2	7	9	2	1	1	7	1	1	5	1	7	50
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.5	2.2	5.4	8.7	2.2	1.1	1.1	7.6	1.1	1.1	5.4	1.1	2.2	45.5
Struck & Lost	0.0	0.0	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	8.7
Total Take	6.5	2.2	7.6	9.8	2.2	1.1	1.1	7.6	1.1	1.1	5.4	1.1	7.6	54.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	6.8	2.3	5.7	9.1	2.3	1.1	1.1	8.0	1.1	1.1	5.7	1.1		45.5
Struck & Lost	0.0	0.0	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		8.7
Total Take	6.8	2.3	11.5	12.0	2.3	1.1	1.1	8.0	1.1	1.1	5.7	1.1		54.2
Total Take (%)	12.6%	4.2%	21.2%	22.1%	4.2%	2.1%	2.1%	14.7%	2.1%	2.1%	10.5%	2.1%		100.0%
Cum. Take	6.8	9.1	20.6	32.6	34.8	36.0	37.1	45.1	46.2	47.3	53.0	54.2		
Cum. Take (%)	12.6%	16.6%	38.0%	60.1%	64.3%	66.4%	68.5%	83.2%	85.3%	87.4%	97.9%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	3	6	11	4	1	4	5	5	4	6	5	13	68
Struck & Lost	0	0	0	0	0	0	1	1	2	1	0	0	3	8
Total Take	1	3	6	11	4	1	5	6	7	5	6	5	16	76
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.1	3.3	6.5	11.9	4.3	1.1	4.3	5.4	5.4	4.3	6.5	5.4	14.1	73.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	2.2	1.1	0.0	0.0	3.3	8.7
Total Take	1.1	3.3	6.5	11.9	4.3	1.1	5.4	6.5	7.6	5.4	6.5	5.4	17.3	82.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.3	4.0	8.0	14.7	5.4	1.3	5.4	6.7	6.7	5.4	8.0	6.7		73.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	3.5	1.7	0.0	0.0		8.7
Total Take	1.3	4.0	8.0	14.7	5.4	1.3	7.1	8.4	10.2	7.1	8.0	6.7		82.3
Total Take (%)	1.6%	4.9%	9.8%	17.9%	6.5%	1.6%	8.6%	10.2%	12.3%	8.6%	9.8%	8.1%		100.0%
Cum. Take	1.3	5.4	13.4	28.1	33.5	34.8	41.9	50.3	60.5	67.6	75.6	82.3		
Cum. Take (%)	1.6%	6.5%	16.3%	34.2%	40.7%	42.3%	50.9%	61.1%	73.5%	82.1%	91.9%	100.0%		

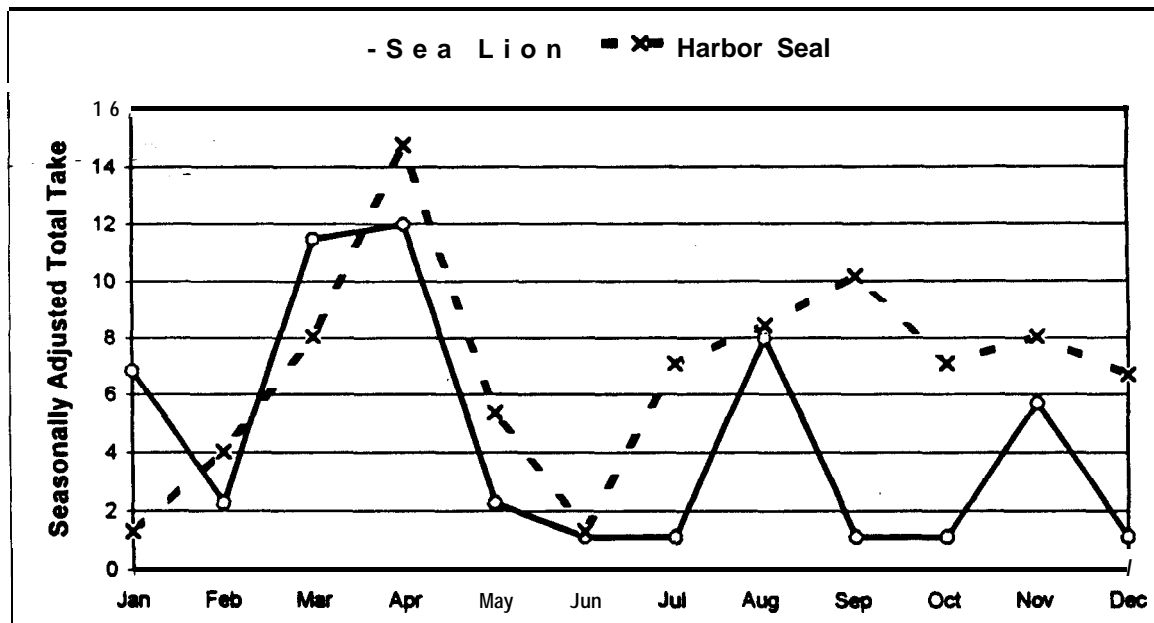
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Atka IRA Council and City of Atka, 1994.

Table 43. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Atka, 1994

HARVEST **BY** AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	2	4.6%	2.2	4.0%	8	11.6%	6.7	11.6%
Adult Female	19	45.2%	20.6	4.2%	19	27.9%	20.6	27.9%
Adult Unknown Sex	5	11.9%	5.4	11.9%	8	11.6%	0.7	11.0%
Juvenile Male	13	31.0%	14.1	31.0%	7	10.3%	7.6	10.3%
Juvenile Female	3	7.1%	3.3	7.1%	5	7.4%	5.4	7.4%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	15	22.1%	16.3	22.1%
Pup Male	0	0.0%	0.0	0.0%	2	2.9%	2.2	2.9%
Pup Female	0	0.0%	0.0	0.0%	1	1.5%	1.1	1.5%
Pup Unknown Sex	0	0.0%	0.0	0.0%	3	4.4%	3.3	4.4%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	42	100.0%	45.5	100.0%	60	100.0%	73.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE **BY** YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	SW Total	
		Lost	Take			Lost	Take
1992	28.6	9.9	38.5	1992	26.6	9.9	36.5
1993	25.1	0.0	25.1	1993	32.7	0.0	32.7
1994	45.5	6.7	64.2	1994	73.7	6.7	82.3

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Atka IRA Council and City of Atka, 1994.

Table 44. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Nikolski, 1994

SAMPLING DESIGN:**CENSUS**

Total Native Households	12
Surveyed Households	12
Sampling Fraction	100.0%
Sample Household Members	18
Estimated Household Members	18.0

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	91.7%	100.0%
Hunted	0.0%	50.0%
Harvested	0.0%	50.0%
Received	83.3%	66.7%
Gave Away	16.7%	50.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	6.0
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	6.0
Number Harvested Per Capita	0.00	0.33

SEA LION HARVEST BY MONTH														Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—	—	—			
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—			
HARBOR SEAL HARVEST BY MONTH														Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	1	0	0	1	0	1	1	1	1	0	0	0	0	0	6
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	1	0	0	1	0	1	1	1	1	0	0	0	0	0	6
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	6.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	1.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	6.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	1.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0			6.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Take	1.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0			6.0
Total Take (%)	16.7%	0.0%	0.0%	16.7%	0.0%	16.7%	16.7%	16.7%	16.7%	0.0%	0.0%	0.0%			100.0%
Cum. Take	1.0	1.0	1.0	2.0	2.0	3.0	4.0	5.0	6.0	6.0	6.0	6.0			
Cum. Take(X)	16.7%	16.7%	16.7%	33.3%	33.3%	50.0%	66.7%	83.3%	100.0%	100.0%	100.0%	100.0%			

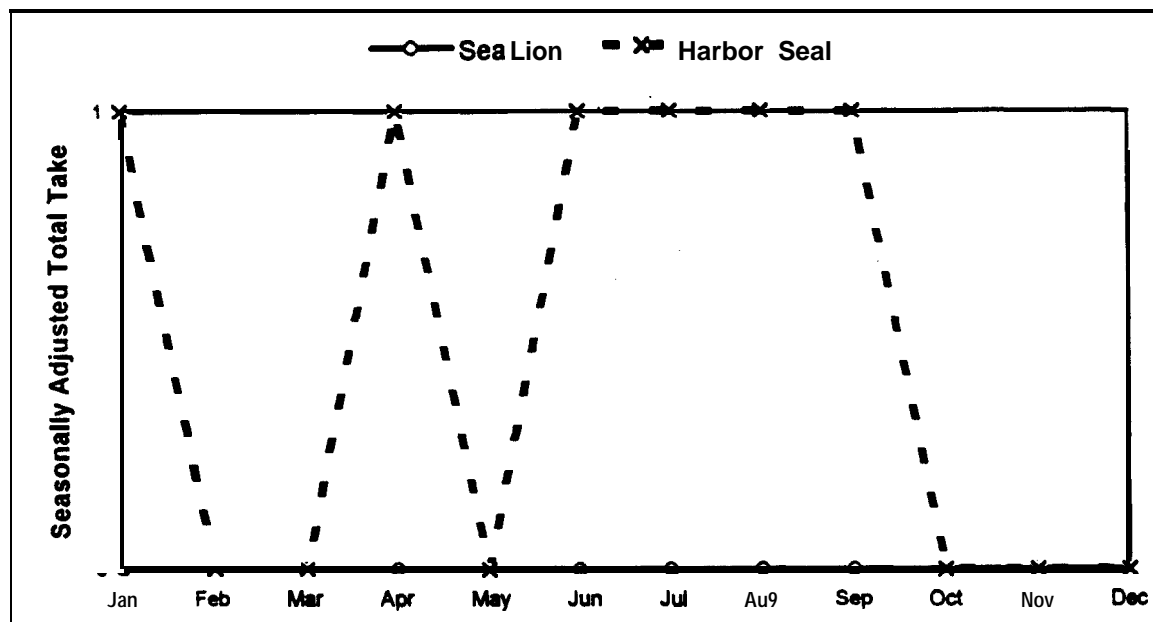
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Nikolski IRA Council and Chaluka Corporation, 1994

Table 44. (cont.) **SEA LION & HARBOR SEAL HARVEST ESTIMATES: Nikolski, 1994**

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	50.0%	3.0	50.0%
Adult Female	0	—	0.0	—	1	16.7%	1.0	16.7%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	1	16.7%	1.0	16.7%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	1	16.7%	1.0	16.7%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	6	100.0%	6.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	8.2	0.0	8.2	1992	5.8	3.5	9.3
1993	6.0	0.0	6.0	1993	4.0	1.0	5.0
1994	0.0	0.0	0.0	1994	6.0	0.0	6.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Nikolski IRA Council and Chaluka Corporation, 1994.

Table 45. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: **Unalaska, 1994**

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	23	81	104
	Surveyed Households	22	46	68
	Sampling Fraction	95.7%	56.8%	65.4%
	Sample Household Members	77	128	205
	Estimated Household Members	80.5	225.4	305.9

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea <u>Lion</u>	Harbor <u>Seal</u>
used	53.7%	52.6%
Hunted	19.2%	17.1%
Harvested	13.8%	10.1%
Received	48.9%	48.6%
Gave Away	18.1%	17.1%

**Estimated Community Harvest
and Take (Expanded):**

	Sea <u>Lion</u>	Harbor <u>Seal</u>
Total Number Harvested	43.6	31.4
Total Number Struck and Lost	6.4	10.5
Total Nuder Taken	51.9	41.8
Number Harvested Per Capita	0.14	0.10

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	2	6	3	3	1	1	3	1	3	5	5	3	5	41
Struck & Lost	0	1	2	3	0	0	0	0	0	1	0	0	1	8
Total Take	2	7	5	6	1	1	3	1	3	6	5	3	6	49
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.1	7.0	3.1	3.1	1.0	1.0	3.1	1.0	3.1	5.2	5.2	3.1	5.2	43.6
Struck & Lost	0.0	1.0	2.1	3.1	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	8.4
Total Take	2.1	8.0	5.2	6.3	1.0	1.0	3.1	1.0	3.1	6.3	5.2	3.1	6.3	51.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	2.4	7.9	3.6	3.6	1.2	1.2	3.6	1.2	3.6	5.9	5.9	3.6		43.6
Struck & Lost	0.0	1.2	2.4	3.6	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0		8.4
Total Take	2.4	9.1	6.0	7.1	1.2	1.2	3.6	1.2	3.6	7.1	5.9	3.6		51.9
Total Take (%)	4.6%	17.6%	11.5%	13.8%	2.3%	2.3%	6.9%	2.3%	6.9%	13.7%	11.4%	6.9%		100.0%
Cum. Take	2.4	11.5	17.5	24.6	25.8	27.0	30.6	31.7	35.3	42.4	40.4	51.9		
Cum. Take (%)	4.6%	22.2%	33.6%	47.4%	49.7%	52.0%	56.6%	61.1%	66.0%	61.7%	93.1%	100.0%		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	5	3	5	0	2	1	0	2	2	4	2	4	30
Struck & Lost	1	2	2	2	0	0	0	0	0	0	2	0	1	10
Total Take	1	7	5	7	0	2	1	0	2	2	6	2	5	40
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	5.2	3.1	5.2	0.0	2.1	1.0	0.0	2.1	2.1	4.2	2.1	4.2	31.4
Struck & Lost	1.0	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	1.0	10.5
Total Take	1.0	7.3	5.2	7.3	0.0	2.1	1.0	0.0	2.1	2.1	6.3	2.1	5.2	41.8
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	6.0	3.6	6.0	0.0	2.4	1.2	0.0	2.4	2.4	4.0	2.4		31.4
Struck & Lost	1.2	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0		10.5
Total Take	1.2	8.4	5.9	8.4	0.0	2.4	1.2	0.0	2.4	2.4	6.3	2.4		41.8
Total Take (%)	2.8%	20.0%	14.2%	20.0%	0.0%	5.8%	2.9%	0.0%	5.6%	5.8%	17.1%	5.0%		100.0%
Cum. Take	1.2	9.5	15.5	23.8	23.8	26.2	27.4	27.4	29.8	32.3	39.4	41.8		
Cum. Take (%)	2.8%	22.8%	37.0%	56.9%	56.9%	52.7%	65.5%	65.6%	71.4%	77.1%	94.2%	100.0%		

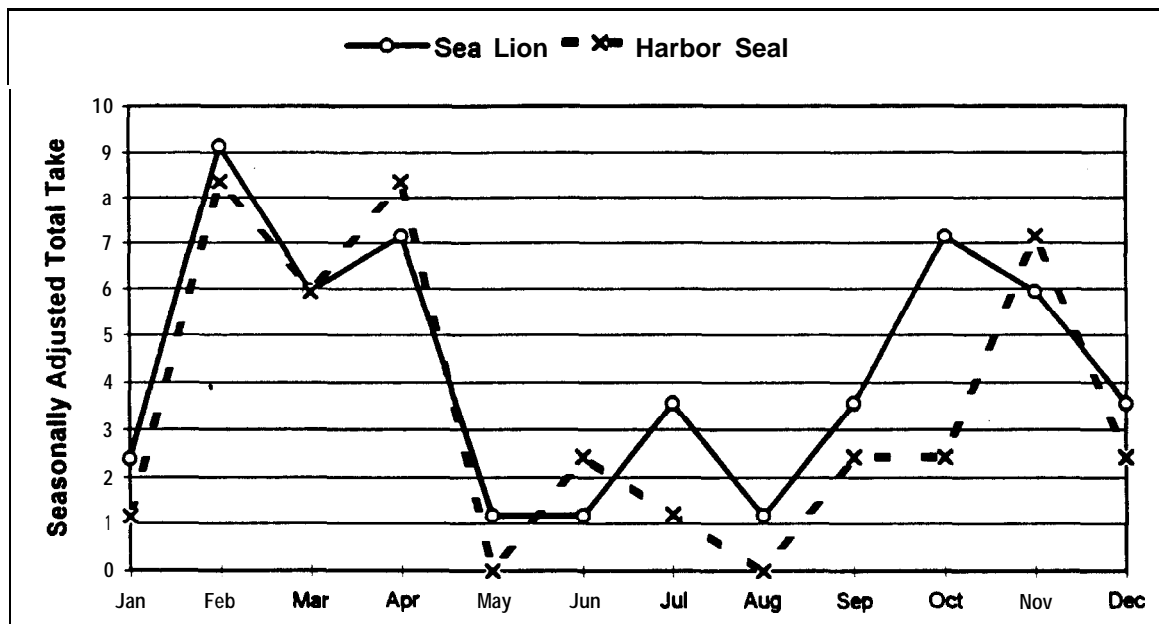
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Qawalangin Tribal Council, 1994.

Table 49. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Unalaska, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	10	24.4%	11.2	25.6%	3	10.0%	3.1	10.0%
Adult Female	2	4.6%	21	4.6%	2	6.7%	2.1	6.7%
Adult Unknown Sex	4	9.8%	4.2	9.6%	9	30.0%	9.4	30.0%
Juvenile Male	14	34.1%	14.6	33.6%	7	23.3%	7.3	23.3%
Juvenile Female	4	9.8%	4.2	9.6%	2	6.7%	2.1	6.7%
Juvenile Unknown Sex	4	9.8%	4.2	9.6%	6	20.0%	6.3	20.0%
Pup Male	1	2.4%	1.0	2.4%	1	3.3%	1.0	3.3%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	2	4.6%	2.1	4.6%	0	0.0%	0.0	0.0%
Total	41	100.0%	43.6	100.0%	30	100.0%	31.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ - To w		Year	Harvest	Shuck/ Total	
		Lost	Take			Lost	Take
1992	41.8	16.7	58.5	1992	47.0	3.7	50.6
1993	53.4	16.9	69.3	1993	32.7	9.9	42.6
1994	43.6	a.4	51.9	1994	31.4	10.5	41.8

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Qawalangin Tribal Council, 1994

Table 49. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: St. George, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	47
Surveyed Households	33
Sampling Fraction	70.296
Sample Household Members	115
Estimated Household Memben	163.8

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	42.4%	0.0%
Hunted	30.3%	0.0%
Harvested	6.1%	0.0%
Received	36.4%	0.0%
Gave Away	9.1%	0.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	2.8	0.0
Total Number Struck and Lost	17.1	0.0
Total Number Taken	19.9	0.0
Number Harvested Per Capita	0.02	0.00

SEA LION HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Struck & Lost	2	2	6	2	0	0	0	0	0	0	0	0	0	12
Total Take	2	2	a	2	0	0	0	0	0	0	0	0	0	14
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Struck & Lost	2.0	2.0	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.1
Total Take	2.8	2.8	11.4	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		2.0
struck & Lost	2.0	2.0	a.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		17.1
Total Take	2.0	2.8	11.4	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		19.9
Total Take (%)	14.3%	14.3%	57.1%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum. Take	2.0	5.7	17.1	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9		
Cum Take (%)	1	4	3	%	28.6%	85.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

HARBOR SEAL HARVEST BY MONTH													Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Los!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	—	—	—	—	—	—	—	—	—	—	—	—		

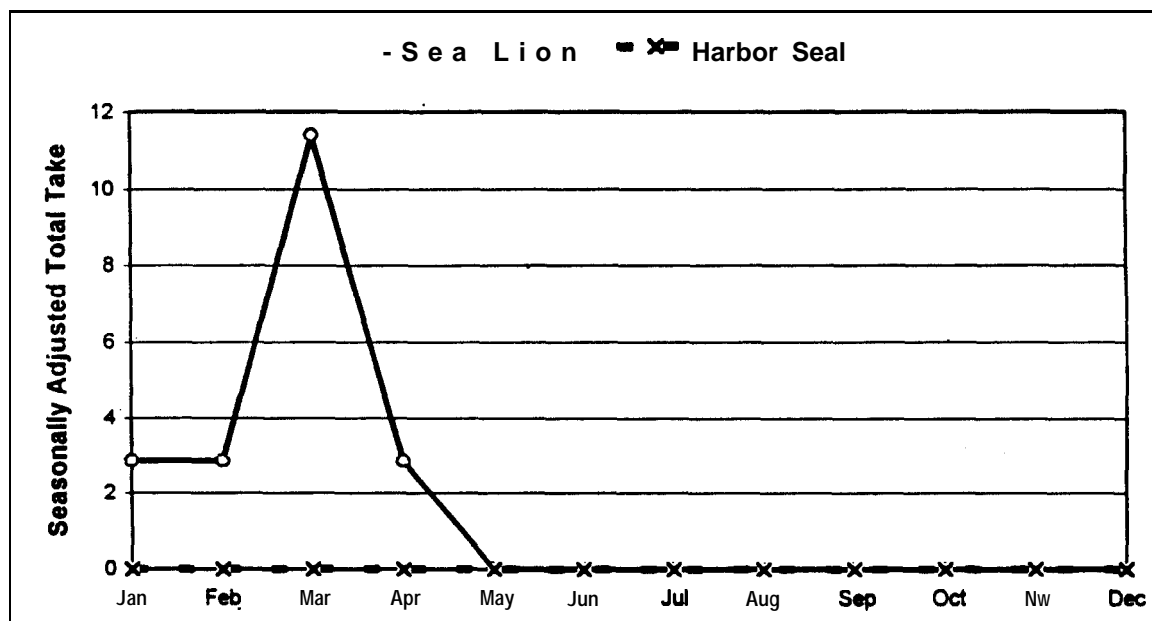
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the St. George Traditional IRA Council, City of St. George, and St. George Tanaq Corporation, 1994

Table 46. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: St. George, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	0	—	0.0	—
Adult Female	0	0.0%	0.0	0.0%	0	—	0.0	—
Adult Unknown Sex	1	50.0%	1.4	50.0%	0	—	0.0	—
Juvenile Male	1	50.0%	1.4	50.0%	0	—	0.0	—
Juvenile Female	0	0.0%	0.0	0.0%	0	—	0.0	—
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	—	0.0	—
Pup Male	0	0.0%	0.0	0.0%	0	—	0.0	—
Pup Female	0	0.0%	0.0	0.0%	0	—	0.0	—
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	—	0.0	—
Male Unknown Age	0	0.0%	0.0	0.0%	0	—	0.0	—
Female Unknown Age	0	0.0%	0.0	0.0%	0	—	0.0	—
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	—	0.0	—
Total	2	100.0%	28	100.0%	0	—	0.0	—

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/Lost	Total Take	Year	Harvest	Struck/Lost	Total Take
1992	14.9	55.0	69.9	1992	0.0	0.0	0.0
1993	3.7	14.6	18.6	1993	0.0	0.0	0.0
1994	2.8	17.1	19.9	1994	0.0	0.0	0.0

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the St. George Traditional IRA Council, City of St. George, and St. George Tanaq Corporation, 1994.

Table 47. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: St. Paul, 1994

<i>SAMPLING DESIGN:</i>		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA	Total Native Households	57	102	159
	Surveyed Households	39	34	73
	Sampling Fraction	68.4%	33.3%	45.9%
	Sample Household Members	149	86	235
	Estimated Household Members	217.8	258.0	475.0

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea <u>Lion</u>	Harbor <u>Seal</u>
Used	64.3%	2.6%
Hunted	35.3%	2.6%
Harvested	25.9%	2.6%
Received	52.2%	0.9%
Gave Away	30.6%	2.8%

Estimated Community Harvest

and rake (Expanded):

	Sea <u>Lion</u>	Harbor <u>Seal</u>
Total Number Harvested	147.0	7.3
Total Number Struck and Lost	26.4	0.0
Total Number Taken	173.4	7.3
Number Harvested Par Capita	0.31	0.02

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	1	5	2	4	16	2	3	0	14	19	17	4	2	89
Struck & Lost	0	3	3	1	0	0	0	0	1	3	3	1	2	17
Total Take	1	6	5	5	16	2	3	0	15	22	20	5	4	106
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.5	7.3	2.9	5.0	32.6	2.9	4.4	0.0	26.6	29.3	24.0	5.8	2.9	147.0
Struck & Lost	0.0	4.4	4.4	1.5	0.0	0.0	0.0	0.0	3.0	4.4	4.4	1.5	2.9	26.4
Total Take	1.5	11.7	7.3	7.3	32.6	2.9	4.4	0.0	29.6	33.7	29.2	7.3	5.8	173.4
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	1.5	7.5	3.0	6.0	33.3	3.0	4.5	0.0	27.2	29.9	25.4	6.0		147.0
Struck & Lost	0.0	4.9	4.9	1.6	0.0	0.0	0.0	0.0	3.4	4.9	4.9	1.6		26.4
Total Take	1.5	12.4	7.9	7.6	33.3	3.0	4.5	0.0	30.5	34.8	30.3	7.6		173.4
Total Take (%)	0.9%	7.1%	4.6%	4.4%	19.2%	1.7%	2.6%	0.0%	17.6%	20.1%	17.5%	4.4%		100.0%
Cum. Take	1.5	13.9	21.0	29.4	62.7	65.7	70.1	70.1	100.7	135.5	165.6	173.4		
Cum. Take (%)	0.9%	0.0%	12.6%	17.0%	36.1%	37.9%	40.4%	40.4%	56.1%	76.1%	95.6%	100.0%		

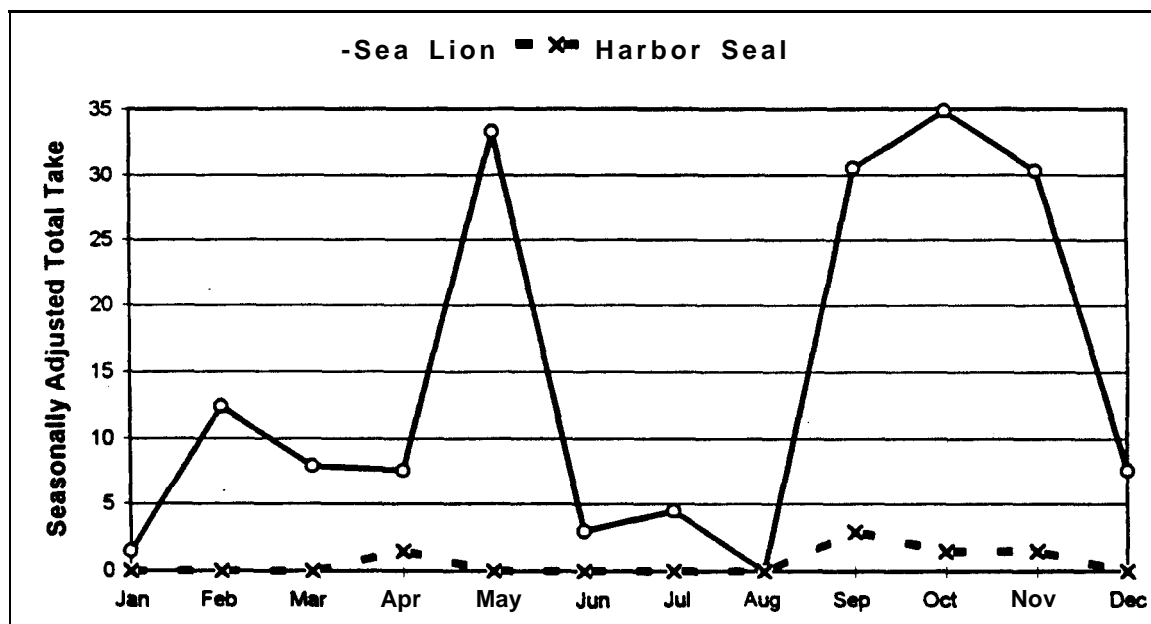
HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	1	0	0	0	0	2	1	1	0	0	5
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	1	0	0	0	0	2	1	1	0	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0	0.0	7.3
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0	0.0	7.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0		7.3
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.9	1.5	1.5	0.0		7.3
Total Take (%)	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	40.0%	20.0%	20.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	4.4	5.8	7.3	7.3		
Cum. Take (%)	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	60.0%	80.0%	100.0%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of St. Paul and Tribal Government of St. Paul, 1994.

Table 47. (cont.) SE4 LION & HARBOR SEAL HARVEST ESTIMATES: St. Paul, 1994*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	5	5.6%	7.3	5.0%	0	0.0%	0.0	0.0%
Adult Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Juvenile Male	80	99.9%	132.3	90.0%	5	100.0%	7.3	100.0%
Juvenile Female	1	1.1%	3.0	2.0%	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	1	1.1%	1.5	1.0%	0	0.0%	0.0	0.0%
Pup Male	2	2.2%	29	2.0%	0	0.0%	0.0	0.0%
Pup Female	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	99	100.0%	147.0	100.0%	5	100.0%	7.3	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	161.7	66.2	226.6	1992	2.3	1.2	3.5
1993	161.7	66.2	226.6	1993	2.3	1.2	3.5
1994	147.0	26.4	173.4	1994	7.3	0.0	7.3

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the City of St. Paul and Tribal Government of St. Paul, 1994

Table 48. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Egegik, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	37
Surveyed Households	29
Sampling Fraction	78.4%
Sample Household Members	81
Estimated Household Members	103.3

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Used	0.0%	34.5%
Hunted	0.0%	17.2%
Harvested	0.0%	17.2%
Received	0.0%	24.1%
Gave Away	0.0%	20.7%

Estimated Community Harvest**and Take (Expanded):**

	<u>sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Total Number Harvested	0.0	12.6
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	12.8
Number Harvested Per Capita	0.00	0.12

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(W)	—	—	—	—	—	—	—	—	—	—				
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—				

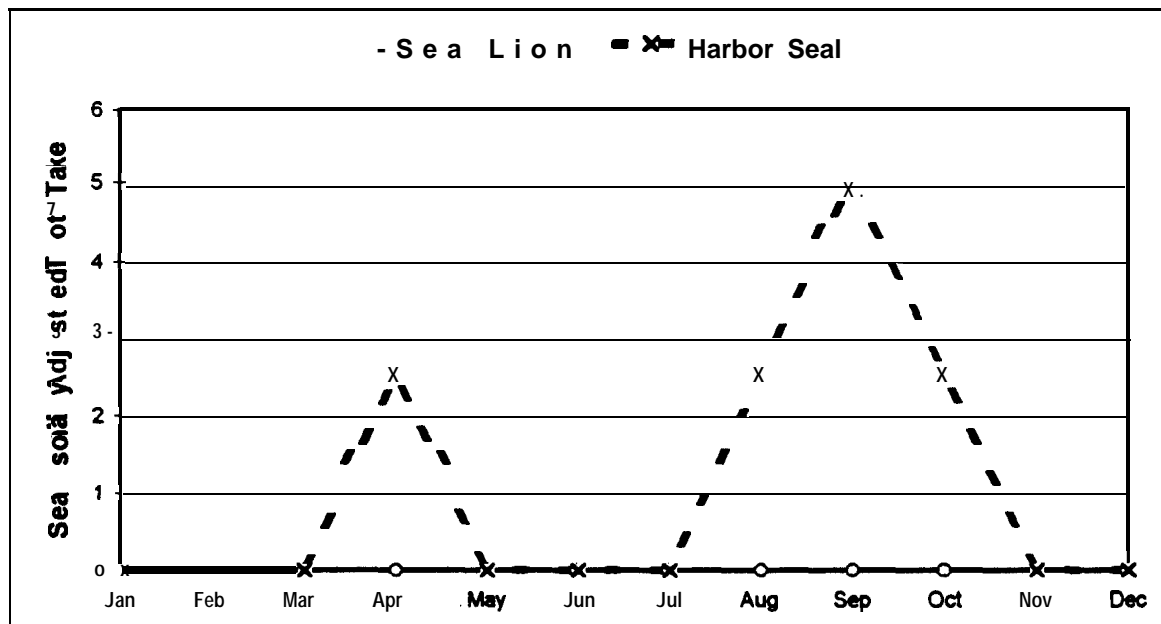
HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nw	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	2	0	0	0	2	4	2	0	0	0	10
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	2	0	0	0	2	4	2	0	0	0	10
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	5.1	2.6	0.0	0.0	0.0	12.8
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	5.1	2.6	0.0	0.0	0.0	12.8
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	5.1	2.6	0.0	0.0		12.8
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	5.1	2.6	0.0	0.0		12.8
Total Take (%)	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	20.0%	40.0%	20.0%	0.0%	0.0%		100.0%
Cum Take	0.0	0.0	0.0	2.6	2.6	2.6	2.6	5.1	10.2	12.8	12.8	12.8		
Cum. Take (K)	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	40.0%	80.0%	100.0%	100.0%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Egegik Traditional Council, 1994.

Table 48. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Egegik, 1994*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	3	30.0%	3.8	30.0%
Adult Female	0	—	0.0	—	1	10.0%	1.3	10.0%
Adult Unknown Sex	0	—	0.0	—	3	30.0%	3.8	30.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sdx and Age	0	—	0.0	—	3	30.0%	3.8	30.0%
Total	0	—	0.0	—	10	100.0%	12.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL				
S			W	Total	Struck/ Total			
<u>Year</u>	<u>Harvest</u>	<u>Lost</u>	<u>Take</u>		<u>Year</u>	<u>Harvest</u>	<u>Lost</u>	<u>Take</u>
1992	0.0	0.0	0.0		1992	3.3	14.3	17.7
1993	0.0	0.0	0.0		1993	7.7	3.3	11.0
1994	0.0	0.0	0.0		1994	12.6	0.0	12.6

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Egegik Traditional Council, 1994.

Table 49. SEA LION AND HARBOR SEAL HARVEST ESTIMATES: King Salmon, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	26
Surveyed Households	23
Sampling Fraction	88.5%
Sample Household Members	76
Estimated Household Members	85.9

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Used	0.0%	56.5%
Hunted	0.0%	26.1%
Harvested	0.0%	21.7%
Received	0.0%	39.1%
Gave Away	0.0%	26.1%

**Estimated Community Harvest
and Take (Expanded):**

	<u>Sea</u> <u>Lion</u>	<u>Harbor</u> <u>Seal</u>
Total Number Harvested	0.0	17.0
Total Number Struck and Lost	0.0	4.5
Total Number Taken	0.0	21.5
Number Harvested Per Capita	0.00	0.20

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	4	0	0	2	4	5	0	0	0	0	15
Struck & Lost	0	0	0	2	0	0	0	2	0	0	0	0	0	4
Total Take	0	0	0	6	0	0	2	6	5	0	0	0	0	19
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	4.5	0.0	0.0	2.3	4.5	5.7	0.0	0.0	0.0	0.0	17.0
Struck & Lost	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	4.5
Total Take	0.0	0.0	0.0	6.8	0.0	0.0	2.3	6.8	5.7	0.0	0.0	0.0	0.0	21.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	4.5	0.0	0.0	2.3	4.5	5.7	0.0	0.0	0.0		17.0
Struck & Lost	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0		4.5
Total Take	0.0	0.0	0.0	6.8	0.0	0.0	2.3	6.8	5.7	0.0	0.0	0.0		21.5
Total Take (%)	0.0%	0.0%	0.0%	31.6%	0.0%	0.0%	10.5%	31.6%	26.3%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	6.8	6.8	6.8	9.0	15.8	21.5	21.5	21.5	21.5		
Cum Take (%)	0.0%	0.0%	0.0%	31.6%	31.6%	31.6%	42.1%	73.7%	100.0%	100.0%	100.0%	100.0%		

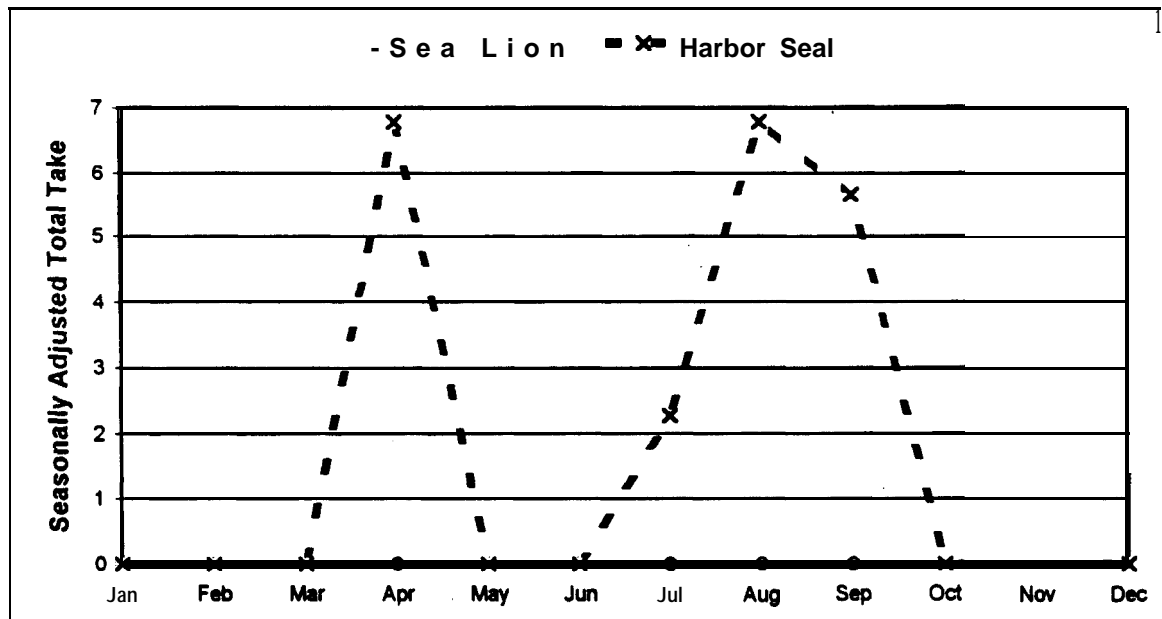
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the King Salmon Traditional Council. 1994

Table 49. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: King Salmon, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	5	33.3%	5.7	33.3%
Adult Female	0	—	0.0	—	3	20.0%	3.4	20.0%
Adult Unknown Sex	0	—	0.0	—	1	6.7%	1.1	6.7%
Juvenile Male	0	—	0.0	—	1	6.7%	1.1	6.7%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	2	13.3%	2.3	13.3%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	3	20.0%	3.4	20.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	15	100.0%	17.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	10.2	0.0	10.2
1993	0.0	0.0	0.0	1993	21.3	10.7	32.0
1994	0.0	0.0	0.0	1994	17.0	4.5	21.5

SOURCE. Alaska Department of Fish and Game. Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the King Salmon Traditional Council, 1994

Table 60. SEA LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Levelock, 1994**SAMPLING DESIGN:
CENSUS**

Total Native Households	35
Surveyed Households	20
Sampling Fraction	57.1%
Sample Household Members	58
Estimated Household Members	101.5

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	5.0%	0.0%
Hunted	0.0%	0.0%
Harvested	0.0%	0.0%
Received	5.0%	0.0%
Gave Away	0.0%	0.0%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	0.0
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	0.0
Number Harvested Per Capita	0.00	0.00

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—				
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

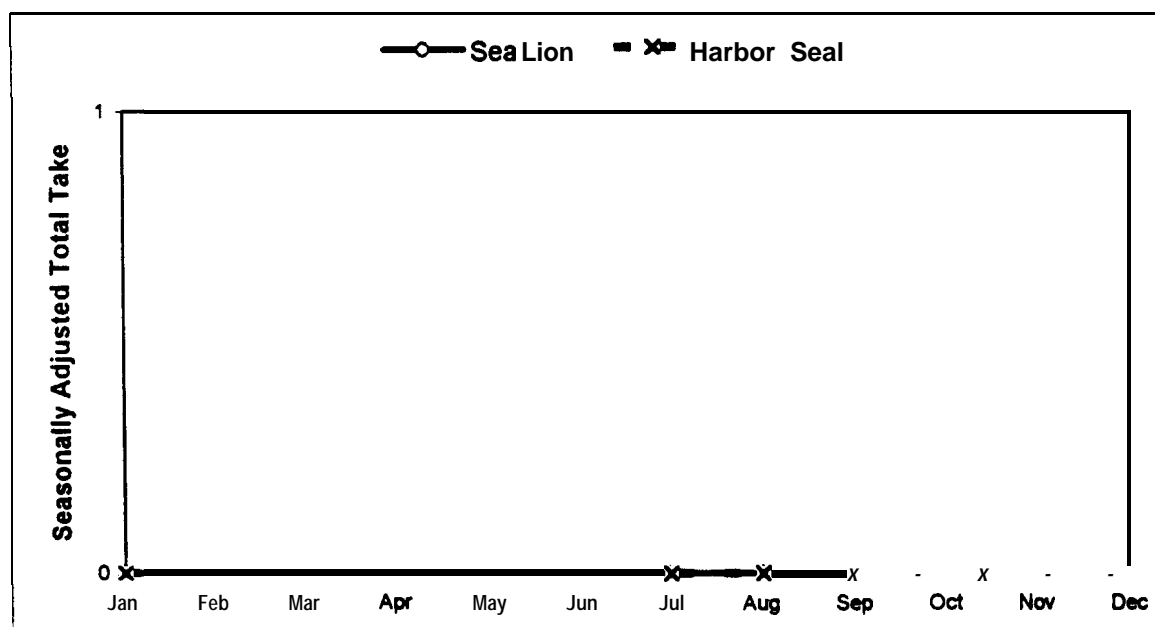
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Levelock Traditional Council, 1994.

Table SO. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Levelock, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	—	0.0	—
Adult Female	0	—	0.0	—	0	—	0.0	—
Adult Unknown Sex	0	—	0.0	—	0	—	0.0	—
Juvenile Male	0	—	0.0	—	0	—	0.0	—
Juvenile Female	0	—	0.0	—	0	—	0.0	—
Juvenile Unknown Sex	0	—	0.0	—	0	—	0.0	—
Pup Male	0	—	0.0	—	0	—	0.0	—
Pup Female	0	—	0.0	—	0	—	0.0	—
Pup Unknown Sex	0	—	0.0	—	0	—	0.0	—
Male Unknown Age	0	—	0.0	—	0	—	0.0	—
Female Unknown Age	0	—	0.0	—	0	—	0.0	—
Unknown Sex and Age	0	—	0.0	—	0	—	0.0	—
Total	0	—	0.0	—	0	—	0.0	—

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	0.0	0.0	0.0	1992	10.8	0.0	10.8
1993	0.0	0.0	0.0	1993	2.7	5.4	0.1
1994	0.0	0.0	0.0	1994	0.0	0.0	0.0

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Levelock Traditional Council, 1994.

Table 61. SE4 LION AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: **Naknek, 1994**

SAMPLING DESIGN:		<u>Active</u>	<u>Other</u>	<u>Total</u>
TWO STRATA				
	Total Native Households	19	73	92
	Surveyed Households	16	30	46
	Sampling Fraction	642%	41.1%	60.0%
	Sample Household Members	63	94	157
	Estimated Household Members	74.8	226.7	303.5

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Used	0.0%	51.2%
Hunted	0.0%	18.3%
Harvested	0.0%	6.5%
Received	0.0%	38.1%
Gave Away	0.0%	10.5%

Estimated Community Harvest and Take (Expanded):

	<u>Sea</u>	<u>Harbor</u>
	<u>Lion</u>	<u>Seal</u>
Total Number Harvested	0.0	21.4
Total Number Struck and Lost	0.0	a.3
Total Number Taken	0.0	29.7
Number Harvested Per Capita	0.00	0.07

SEA LION HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	--	--	--	--	--	--	--	--	--	--	--	--		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		

HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	5	5	0	0	2	4	1	0	0	0	17
Struck & Lost	0	0	0	0	0	1	2	3	0	1	0	0	0	7
Total Take	0	0	0	5	5	1	2	5	4	2	0	0	0	24
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	5.9	5.9	0.0	0.0	3.6	4.8	1.2	0.0	0.0	0.0	21.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	1.2	2.4	3.6	0.0	1.2	0.0	0.0	0.0	6.3
Total Take	0.0	0.0	0.0	5.9	5.9	1.2	2.4	7.2	4.8	2.4	0.0	0.0	0.0	29.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	5.9	5.9	0.0	0.0	3.6	4.8	1.2	0.0	0.0		21.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	1.2	2.4	3.6	0.0	1.2	0.0	0.0		8.3
Total Take	0.0	0.0	0.0	5.9	5.9	1.2	2.4	7.2	4.8	2.4	0.0	0.0		29.7
Total Take (%)	0.0%	0.0%	0.0%	20.0%	20.0%	4.0%	8.0%	24.1%	16.0%	8.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	0.0	5.9	11.9	13.1	15.4	22.6	27.4	29.7	29.7	29.7		
Cum. Take (X)	0.0%	0.0%	0.0%	20.0%	39.9%	43.9%	51.9%	76.6%	92.0%	100.0%	100.0%	100.0%		

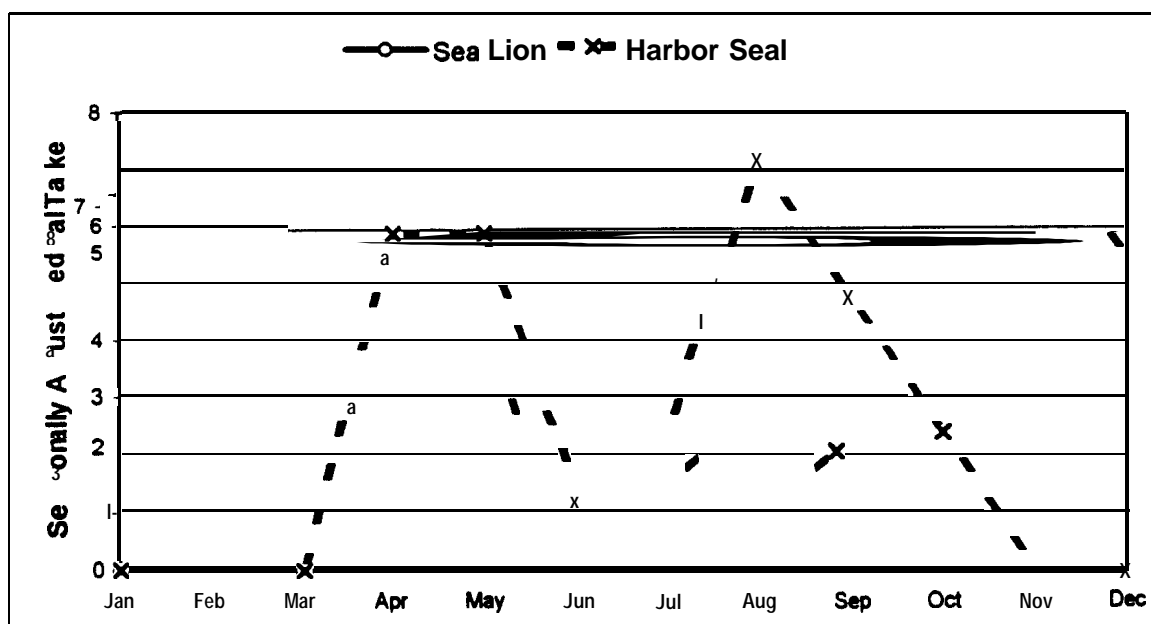
SOURCE: Alaska Department of Fish and Game. Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Naknek Traditional Council, 1994

Table 61. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Naknek, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	2	11.6%	3 . 6	16.9%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	2	11.6%	2.4	11.1%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	2	11.8%	2.4	11.1%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	5	29.4%	5.9	27.7%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	6	35.3%	7 . 1	33.2%
Total	0	—	0.0	—	17	100.0%	21.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	SW Total			Year	Struck/ Total		
	Harvest	Lost	Take		Harvest	Lost	Take
1992	0.0	0.0	0.0	1992	26.6	7.0	33.6
1993	0.0	0.0	0.0	1993	2.7	0.0	2.7
1994	0.0	0.0	0.0	1994	21.4	8.3	29.7

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Naknek Traditional Council, 1994.

Table 62 SEA UON AND HARBOR SEAL HARVEST AND TAKE ESTIMATES: Pilot Point, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	27
Surveyed Households	26
Sampling Fraction	96.3%
Sample Household Members	85
Estimated Household Members	88.3

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea	Harbor
	Lion	Seal
Used	0.0%	7.7%
Hunted	0.0%	11.5%
Harvested	0.0%	3.0%
Received	0.0%	0.0%
Gave Away	0.0%	0.0%

Estimated Community Harvest and Take (Expanded):

	Sea	Harbor
	Lion	Seal
Total Number Harvested	0.0	3.1
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	3.1
Number Harvested Per Capita	0.00	0.04

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	3	0	0	0	0	3
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1
Total Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	1	3.1	3.1	3.1	3.1
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

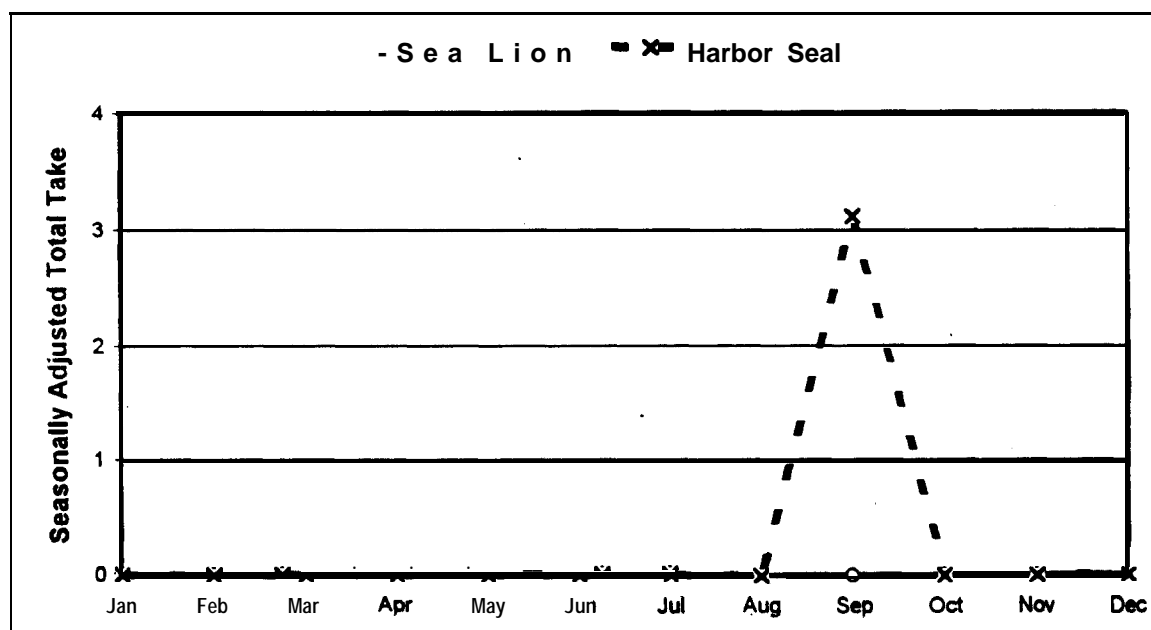
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Pilot Point Traditional Council, 1994

Table 52. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Pilot Point, 1894

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	3	100.0%	3.1	100.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	3	100.0%	3.1	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	SW Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take
1992	0.0	0.0	0.0	1992	5.4	4.3	9.7
1993	0.0	0.0	0.0	1993	2.2	0.0	2.2
1994	0.0	0.0	0.0	1994	3.1	0.0	3.1

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Pilot Point Traditional Council, 1994

Table 53. SEA LION AND HARBOR SEAL HARVEST ESTIMATES: Port Heiden, 1894**SAMPLING DESIGN:
CENSUS**

Total Native Household	34
Surveyed Households	27
Sampling Fraction	79.4%
Sample Household Members	84
Estimated Household Members	105.8

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal
Used	3.7%	88.9%
Hunted	3.7%	55.6%
Harvested	0.0%	37.0%
Received	3.7%	63.0%
Gave Away	0.0%	25.9%

**Estimated Community Harvest
and Take (Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	63.0
Total Number Struck and Lost	0.0	45.3
Total Number Taken	0.0	108.3
Number Harvested Per Capita	0.00	0.60

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	1	9	6	5	10	7	12	0	0	0	0	50
Struck & Lost	0	0	0	0	3	5	9	9	10	0	0	0	0	36
Total Take	0	0	1	9	9	10	19	16	22	0	0	0	0	86
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.3	11.3	7.6	6.3	12.6	8.8	15.1	0.0	0.0	0.0	0.0	63.0
Struck & Lost	0.0	0.0	0.0	0.0	3.8	6.3	11.3	11.3	12.6	0.0	0.0	0.0	0.0	46.3
Total Take	0.0	0.0	1.3	11.3	11.3	12.6	23.9	20.1	27.7	0.0	0.0	0.0	0.0	106.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	1.3	11.3	7.6	6.3	12.6	6.6	15.1	0.0	0.0	0.0		63.0
Struck & Lost	0.0	0.0	0.0	0.0	3.8	6.3	11.3	11.3	12.6	0.0	0.0	0.0		45.3
Total Take	0.0	0.0	1.3	11.3	11.3	12.6	23.9	20.1	27.7	0.0	0.0	0.0		108.3
Total Take (%)	0.0%	0.0%	1.2%	10.5%	10.5%	11.6%	22.1%	18.6%	25.6%	0.0%	0.0%	0.0%		100.0%
Cum. Take	0.0	0.0	1.3	12.6	23.9	36.5	60.4	80.6	106.3	106.3	106.3	106.3		
Cum. Take (%)	0.0%	0.0%	1.2%	11.6%	22.1%	33.7%	55.8%	74.4%	100.0%	100.0%	100.0%	100.0%		

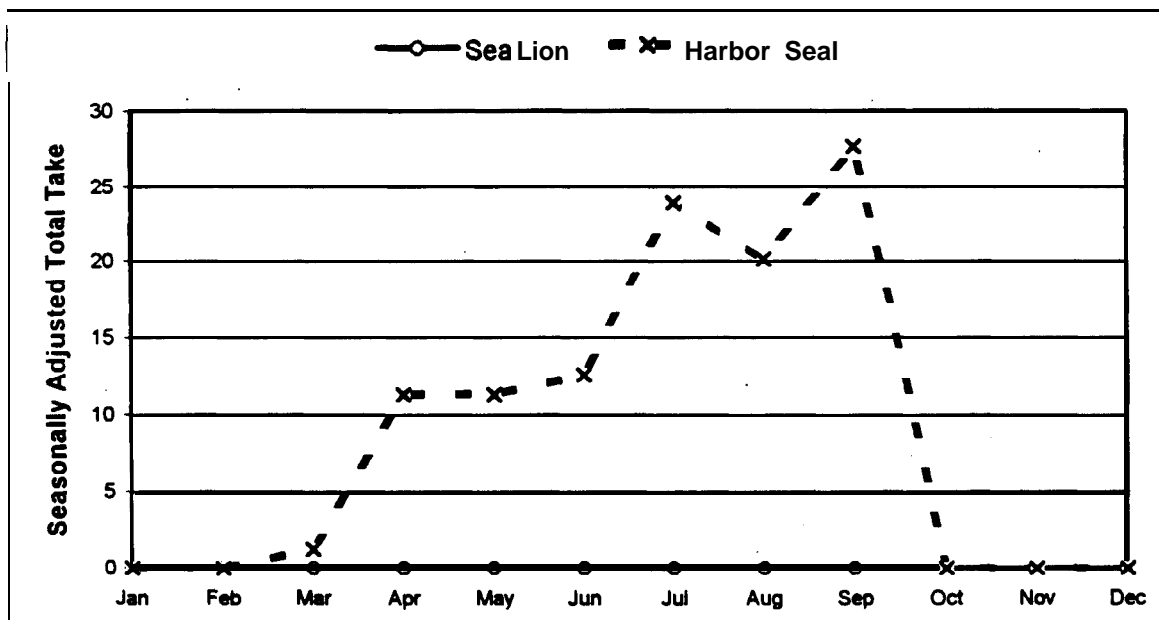
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Port Heiden Traditional Council, 1994.

Table 63. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: Port Heiden, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	6	12.0%	7.6	12.0%
Adult Female	0	—	0.0	—	2	4.0%	2.5	4.0%
Adult Unknown Sex	0	—	0.0	—	35	70.0%	441	10.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	4	8.0%	5.0	8.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	1	2.0%	1.3	2.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	2	4.0%	2.5	4.0%
Total	0	—	0.0	—	50	100.0%	63.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	40.5	36.0	76.5
1993	0.0	0.0	0.0	1993	30.7	19.9	50.6
1994	0.0	0.0	0.0	1994	63.0	45.3	108.3

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Port Heiden Traditional Council, 1994.

Table 63. SEA LION AND HARBOR SEAL HARVEST ESTIMATES: South Naknek, 1994

**SAMPLING DESIGN:
CENSUS**

Total Native Households	32
Surveyed Households	29
Sampling Fraction	90.6%
Sample Household Members	89
Estimated Household Members	98.2

HARVEST AND USE INFORMATION

Percentage of Native Households:

	Sea Lion	Harbor Seal
Used	0.0%	27.6%
Hunted	0.0%	10.3%
Harvested	0.0%	6.6%
Received	0.0%	20.7%
Gave Away	0.0%	3.4%

**Estimated Community Harvest
and Take(Expanded):**

	Sea Lion	Harbor Seal
Total Number Harvested	0.0	4.4
Total Number Struck and Lost	0.0	1.1
Total Number Taken	0.0	5.5
Number Harvested Per Capita	0.00	0.04

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—				
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum Take (%)	—	—	—	—	—	—	—	—	—	—				

HARBOR SEAL HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	2	0	1		0	0	0	1	0	0	0	4
Struck & Lost	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Take	0	0	2	0	1	0	0	0	0	2	0	0	0	5
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	2.2	0.0	1.1	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	4.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	5.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	2.2	0.0	1.1	0.0	0.0	0.0	0.0	1.1	0.0	0.0		4.4
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0		11
Total Take	0.0	0.0	2.2	0.0	1.1	0.0	0.0	0.0	0.0	2.2	0.0	0.0		5.5
Total Take(%)	0.0%	0.0%	40.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%		100.0%
Cum Take	0.0	0.0	2.2	2.2	3.3	3.3	3.3	3.3	3.3	5.5	5.5	5.5		
Cum Take (%)	0.0%	00%	40.0%	10.0%	60.0%	60.0%	600%	600%	600%	100.0%	100.0%	100.0%		

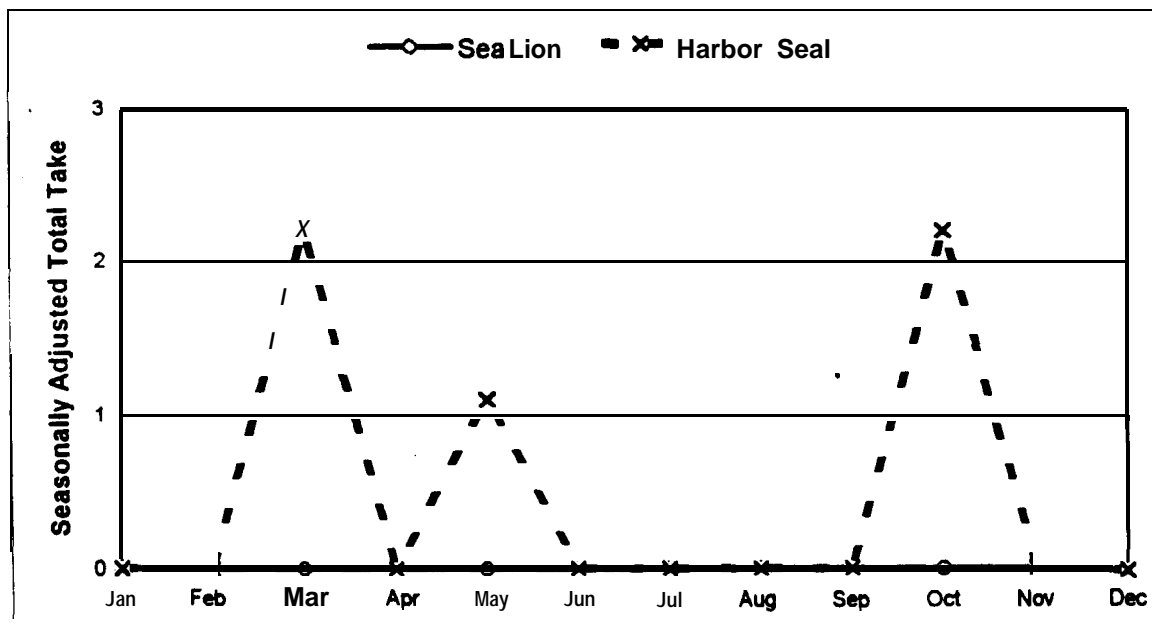
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the South Naknek Traditional Council, 1994

Tabk 53. (cont.) SEA LION & HARBOR SEAL HARVEST ESTIMATES: South Naknek, 1994

HARVEST BY AGE AND SEX

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	4	100.0%	4.4	100.0%
Total	0	—	0.0	—	4	100.0%	4.4	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Lost	Take	Year	Harvest	Struck/Lost	Total Take
1992	0.0	0.0	0.0	1992	2.3	6.9	9.2
1993	0.0	0.0	0.0	1993	6.4	18.0	24.4
1994	0.0	0.0	0.0	1994	4.4	1.1	5.5

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the South Naknek Traditional Council, 1994.

Table 55. SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Aleknagik, 1994**SAMPLING DESIGN:****CENSUS**

Total Native Households	38
Surveyed Households	23
Sampling Fraction	60.5%
Sample Household Members	83
Estimated Household Members	137.1

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	<u>Sea Lion</u>	<u>Harbor Seal and Spotted Seal</u>
Used	8.7%	70.3%
Hunted	0.0%	34.8%
Harvested	0.0%	17.4%
Received	8.7%	60.9%
Gave Away	0.0%	26.1%

Estimated Community Harvest and Take (Expanded):

	<u>Sea Lion</u>	<u>Harbor Seal</u>	<u>spotted Seal</u>
Total Number Harvested	0.0	0.0	21.5
Total Number Struck and Lost	0.0	3.3	0.0
Total Number Taken	0.0	3.3	21.5
Number Harvested Per Capita	0.00	0.00	0.16

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—	—	—		
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—		

HARBOR SEAL AND SPOTTED SEAL HARVEST BY MONTH

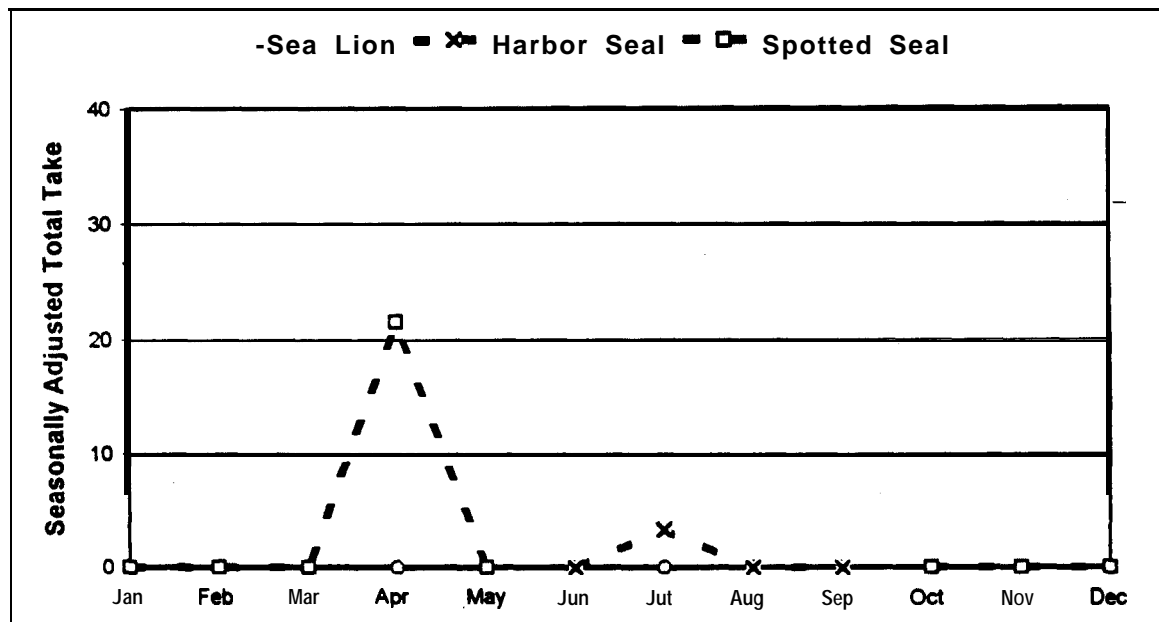
	<u>Spotted Seal</u>					<u>Harbor Seal</u>				<u>Spotted Seal</u>			Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	13	0	0	0	0	0	0	0	0	0	13
Struck & Lost	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total Take	0	0	0	13	0	0	2	0	0	0	0	0	0	15
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Total Take	0.0	0.0	0.0	21.5	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	24.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		21.5
struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0		3.3
Total Take	0.0	0.0	0.0	21.5	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0		24.0
Total Take (%)	00%	00%	00%	86.7%	0.0%	0.0%	13.3%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum Take	0.0	0.0	0.0	21.5	21.5	21.5	24.8	24.0	24.0	24.0	24.0	24.0		
Cum Take(%)	0.0%	0.0%	0.0%	86.7%	86.7%	86.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska with assistance from the Aleknagik Tribal Council, 1994

Table 66. (cont.) SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Aleknagik, 1994**HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal				Spotted Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	—	0.0	—	5	38.5%	2.3	38.5%
Adult Female	0	—	0.0	—	0	—	0.0	—	2	15.4%	3.3	15.4%
Adult Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	—	0.0	—	1	7.7%	1.7	7.7%
Juvenile Female	0	—	0.0	—	0	—	0.0	—	2	15.4%	3.3	15.4%
Juvenile Unknown Sex	0	—	0.0	—	0	—	0.0	—	1	7.7%	1.7	7.7%
Pup Male	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	—	0.0	—	2	15.4%	3.3	15.4%
Male Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	0	—	0.0	—	13	100.0%	21.5	100.0%

* Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL				SPOTTED SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	0.0	3.6	3.6	1992	26.6	5.5	34.1
1993	0.0	0.0	0.0	1993	0.0	0.0	0.0	1993	4.6	0.0	4.0
1994	0.0	0.0	0.0	1994	0.0	3.3	3.3	1994	21.5	0.0	21.5

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Aleknagik Tribal Council, 1994.

Table 56. SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Clark's Point, 1994

<i>SAMPLING DESIGN:</i>		Total
CENSUS	Total Native Households	15
	Surveyed Households	15
	Sampling Fraction	100.0%
	Sample Household Members	44
	Estimated Household Members	44.0

HARVEST AND USE INFORMATION									
<i>Percentage of Native Households:</i>					<i>Estimated Community Harvest and Take (Expanded):</i>				
	<u>Sea Lion</u>	<u>Harbor Seal and Spotted Seal</u>				<u>Sea Lion</u>	<u>Harbor Seal</u>	<u>Spotted Seal</u>	
Used	0.0%	13.3%			Total Number Harvested	0.0	0.0	2.0	
Hunted	60.0%	66.7%			Total Number Struck and Lost	0.0	0.0	0.0	
Harvested	0.0%	13.3%			Total Number Taken	0.0	0.0	2.0	
Received	0.0%	0.0%							
Gave Away	0.0%	6.7%			Number Harvested Per Capita	0.00	0.00	0.05	

SEA LION HARVEST BY MONTH													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)													
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	—	—	—	—	—	—	—	—	—	—	—	—	—

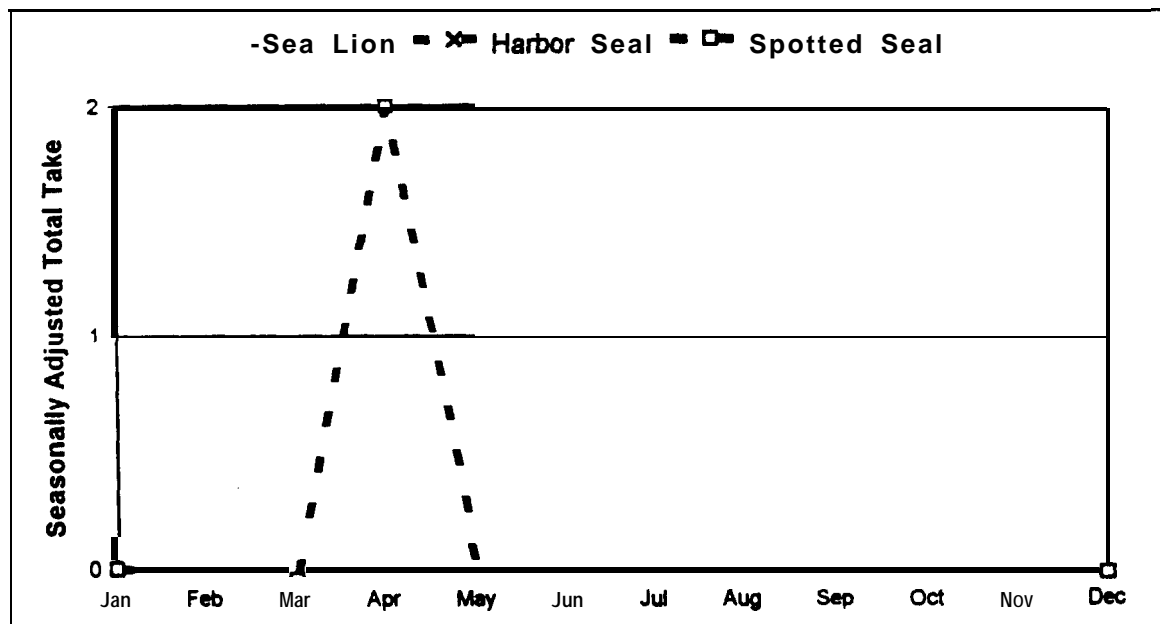
HARBOR SEAL AND SPOTTED SEAL HARVEST BY MONTH													
	<u>Spotted Seal</u>					<u>Harbor Seal</u>				<u>Spotted Seal</u>			Unknown Month
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)													
Harvest	0	0	0	2	0	0	0	0	0	0	0	0	2
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	2	0	0	0	0	0	0	0	0	2
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Total Take (%)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cum. Take (%)	00%	00%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Clark's Point Traditional Council, 1994.

Table 56. (cont.) SEA LION, SPOTTED SEAL HARBOR SEAL HARVEST: Clark's Point, 1894*HARVEST BY AGE AND SEX*

	Sea Lion				Harbor Seal				spotted seal			
	Reported by		Community Est.		Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Female	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Female	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	—	0.0	—	0	—	0.0	—	2	100.0%	2.0	100.0%
Pup Male	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	0	—	0.0	—	2	100.0%	2.0	100.0%

* Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL*ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR*

SEA LION				HARBOR SEAL				SPOTTED SEAL			
Year	Harvest	Lost	Take	Year	Harvest	Lost	Take	Year	Harvest	Lost	Take
1992	0.0	0.0	0.0	1992	0.0	0.0	0.0	1992	10.6	8.5	19.1
1993	0.0	0.0	0.0	1993	0.0	0.0	0.0	1993	2.0	0.0	2.0
1994	0.0	0.0	0.0	1994	0.0	0.0	0.0	1994	2.0	0.0	2.0

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Clark's Point Traditional Council, 1994

Table 57. SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Dillingham, 1994

SAMPLING DESIGN:		Active	Other	Total
TWO STRATA				
	Total Native Households	29	427	456
	Surveyed Households	29	30	59
	Sampling Fraction	100.0%	7.0%	12.9%
	Sample Household Members	112	101	213
	Estimated Household Members	1120	1437.6	1549.6

HARVEST AND USE INFORMATION									
Percentage of Native Households:					Estimated Community Harvest and Take (Expanded):				
	Sea Lion	Harbor Seal and Spotted Seal				Sea Lion	Harbor Seal	Spotted Seal	
Used	0.0%	41.8%			Total Number Harvested	0.0	16.2	35.2	
Hunted	0.0%	15.1%			Total Number Struck and Lost	0.0	0.0	3.0	
Harvested	0.0%	8.4%			Total Number Taken	0.0	16.2	33.2	
Received	0.0%	36.5%							
Gave Away	0.0%	13.8%			Number Harvested Per Capita	0.00	0.01	0.02	

SEA LION HARVEST BY MONTH													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)													
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck a Lost	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck a Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck a Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take(%)	—	—	—	—	—	—	—	—	—	—	—	—	—
Cum Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take(%)	—	—	—	—	—	—	—	—	—	—	—	—	—

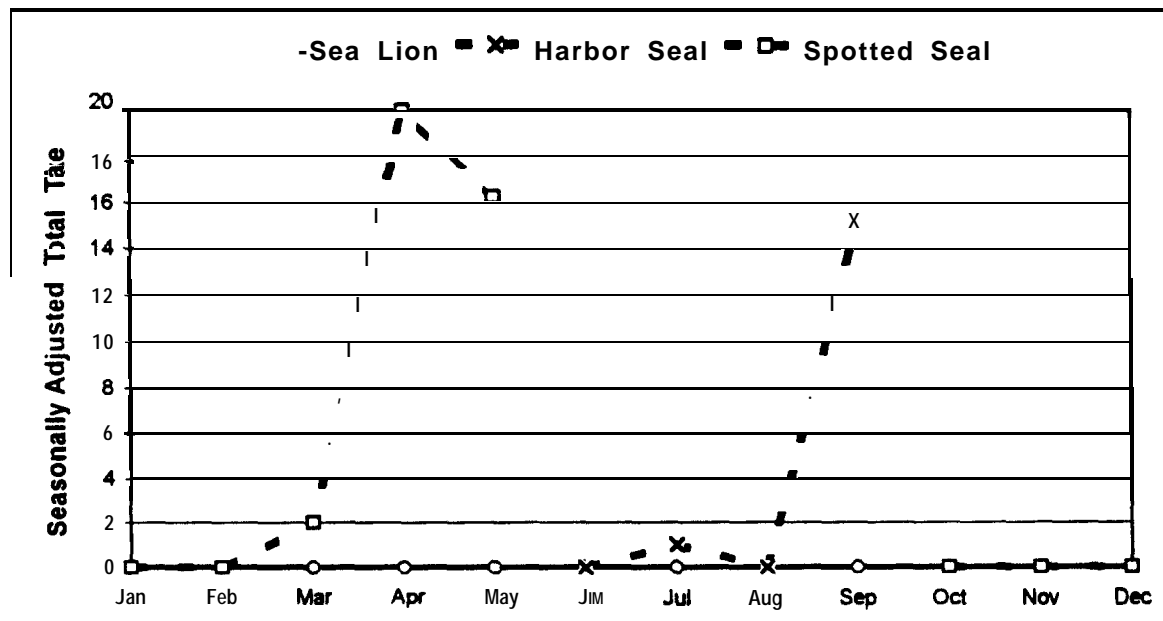
HARBOR SEAL AND SPOTTED SEAL HARVEST BY MONTH													
	Spotted Seal					Harbor Seal				Spotted Seal			Unknown Month
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)													
Harvest	0	0	2	17	3	0	1	0	2	0	0	0	25
Struck a Lost	0	0	0	3	0	0	0	0	0	0	0	0	3
Total Take	0	0	2	20	3	0	1	0	2	0	0	0	28
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	20	17.0	16.2	0.0	1.0	0.0	15.2	0.0	0.0	0.0	51.5
Struck a Lost	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Total Take	0.0	0.0	2.0	20.0	16.2	0.0	1.0	0.0	15.2	0.0	0.0	0.0	54.5
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)													
Harvest	0.0	0.0	2.0	17.0	16.2	0.0	1.0	0.0	15.2	0.0	0.0	0.0	51.5
Struck a Lost	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Total Take	0.0	0.0	2.0	20.0	16.2	0.0	1.0	0.0	15.2	0.0	0.0	0.0	54.5
Total Take (%)	0.0%	0.0%	3.7%	36.7%	29.8%	0.0%	1.8%	0.0%	28.0%	0.0%	0.0%	0.0%	100.0%
Cum Take	0.0	0.0	2.0	22.0	36.2	36.2	39.2	39.2	54.5	54.5	54.5	54.5	
Cum Take (%)	0.0%	0.0%	3.7%	40.4%	70.2%	70.2%	72.0%	72.0%	100.0%	100.0%	100.0%	100.0%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Dillingham Traditional Council, 1994.

Table 67. (cont.) SEA LION, SPOTTED SEAL, HARBOR SEAL HARVEST: Dillingham, 1994**HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal				spottedSeal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	2	66.7%	15.2	93.8%	2	9.1%	2.0	5.7%
Adult Female	0	—	0.0	—	0	0.0%	0.0	0.0%	3	13.6%	3.0	8.5%
Adult Unknown Sex	0	—	0.0	—	1	33.3%	1.0	6.2%	9	40.9%	22.2	63.1%
Juvenile Male	0	—	0.0	—	0	0.0%	0.0	0.0%	2	9.1%	2.0	5.7%
Juvenile Female	0	—	0.0	—	0	0.0%	0.0	0.0%	2	9.1%	2.0	5.7%
Juvenile Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%	4	18.2%	4.0	11.4%
Pup Male	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Female	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	3	100.0%	16.2	100.0%	22	100.0%	35.2	100.0%

* Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL				SPOTTED SEAL			
Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total		Year	Harvest	Struck/ Total	
		Lost	Take			Lost	Take			Lost	Take
1992	0.0	0.0	0.0	1992	29.2	3.8	32.9	1992	49.6	3.8	53.3
1993	0.0	0.0	0.0	1993	18.0	4.2	22.2	1993	26.1	0.0	26.1
1994	0.0	0.0	0.0	1994	16.2	0.0	16.2	1994	35.2	3.0	38.2

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Dillingham Traditional Council, 1994

Table 58. SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Manokotak, 1994

SAMPLING DESIGN:		Active	Other	Total
TWO STRATA	Total Native Households	11	65	76
	Surveyed Households	11	30	41
	Sampling Fraction	100.0%	46.2%	53.9%
	Sample Household Members	54	128	182
	Estimated Household Members	54.0	277.3	331.3

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Barrow	Harbor Seal and Spotted Seal
used	67.3%	98.7%
Hunted	2.6%	21.9%
Harvested	0.0%	13.6%
Received	40.6%	83.6%
Gave Away	18.2%	56.1%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Spotted Seal
Total Number Harvested	0.0	13.7
Total Number Struck and Lost	0.0	0.0
Total Number Taken	0.0	13.7
Number Harvested Per Capita	0.00	0.04

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	--	--	--	--	--	--	--	--	--	--	--	--		--
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take(%)	--	--	--	--	--	--	--	--	--	--	--	--		--

HARBOR SEAL AND SPOTTED SEAL HARVEST BY MONTH

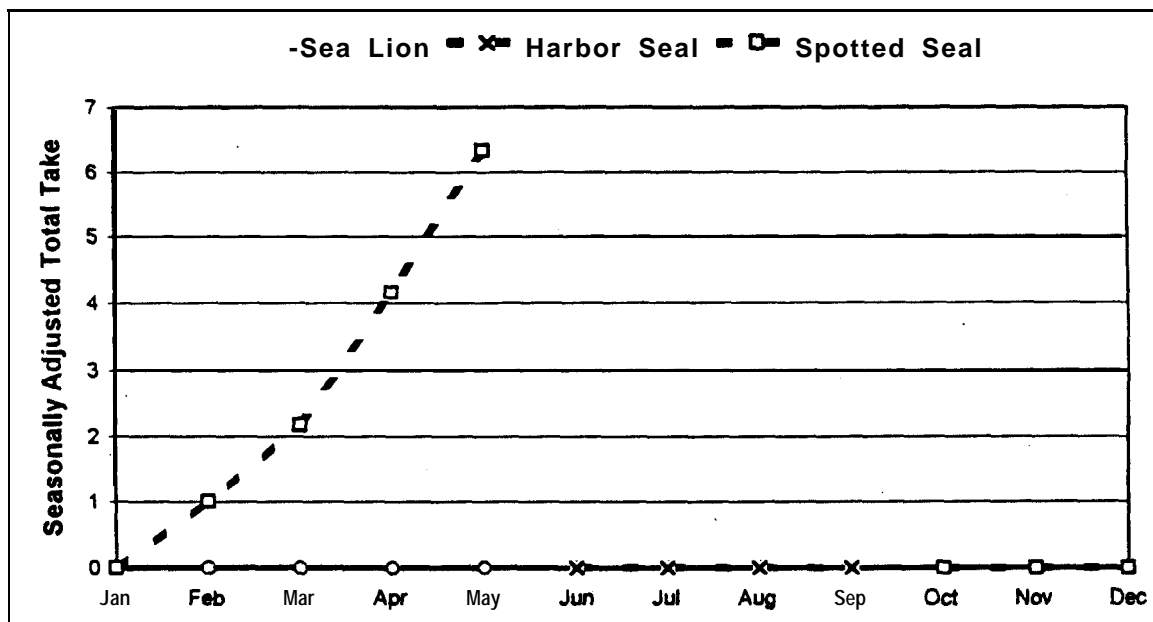
	Spotted Seal					Harbor Seal					Spotted Seal		Unknown Month	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	NW	Dec		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	1	1	3	4	0	0	0	0	0	0	0	0	9
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	1	1	3	4	0	0	0	0	0	0	0	0	9
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	1.0	2.2	4.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	1.0	2.2	4.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	1.0	2.2	4.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0		13.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	1.0	2.2	4.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0		13.7
Total Take (%)	0.0%	7.3%	15.9%	30.5%	46.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		100.0%
Cum Take	0.0	1.0	3.2	7.3	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7		
Cum Take(%)	00%	73%	23.2%	53.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Manokotak Traditional Council, 1994

Table 59. (cont.) SEA LION, **SPOTTED SEAL**, HARBOR SEAL **HARVEST:** Manokotak, 1994**HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal				Spotted Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	—	0.0	—	0	—	0.0	—	3	33.3%	4.2	30.5%
Adult Female	0	—	0.0	—	0	—	0.0	—	1	11.1%	2.2	15.9%
Adult Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Juvenile Male	0	—	0.0	—	0	—	0.0	—	1	11.1%	1.0	7.3%
Juvenile Female	0	—	0.0	—	0	—	0.0	—	2	22.2%	3.2	23.2%
Juvenile Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Male	0	—	0.0	—	0	—	0.0	—	2	22.2%	3.2	23.2%
Pup Female	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Male Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	—	0.0	—	0	—	0.0	—	0	0.0%	0.0	0.0%
Total	0	—	0.0	—	0	—	0.0	—	9	100.0%	13.7	100.0%

• Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL				SPOT-I-ED SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	3.9	0.0	3.9	1992	4.9	3.0	0.7	1992	25.1	1.0	26.1
1993	0.0	0.0	0.0	1993	3.2	0.0	3.2	1993	7.4	0.0	7.4
1994	0.0	0.0	0.0	1994	0.0	0.0	0.0	1994	13.7	0.0	13.7

SOURCE. Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals in Alaska, with assistance from the Manokotak Traditional Council, 1994.

Table 69. SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Togiak, 1994

SAMPLING DESIGN:	Active	Other	Total
TWO STRATA Total Native Households	36	80	116
Surveyed Households	30	28	58
Sampling Fraction	83.3%	35.0%	50.0%
Sample Household Members	143	132	275
Estimated Household Members	171.6	377.1	546.7

HARVEST AND USE INFORMATION**Percentage of Native Households:**

	Sea Lion	Harbor Seal and Spotted Seal
used	1.0%	60.7%
Hunted	1.0%	44.9%
Harvested	1.0%	37.9%
Received	0.0%	47.1%
Gate Away	1.0%	46.4%

Estimated Community Harvest and Take (Expanded):

	Sea Lion	Harbor Seal	Spotted Seal
Total Number Harvested	1.2	0.0	154.2
Total Number Struck and Lost	0.0	0.0	39.9
Total Number Taken	1.2	0.0	194.1
Number Harvested Per Capita	0.00	0.00	0.20

SEA LION HARVEST BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	1	0	0	0	0	0	0	0	0	1
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Total Take (%)	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

HARBOR SEAL AND SPOTTED SEAL HARVEST BY MONTH

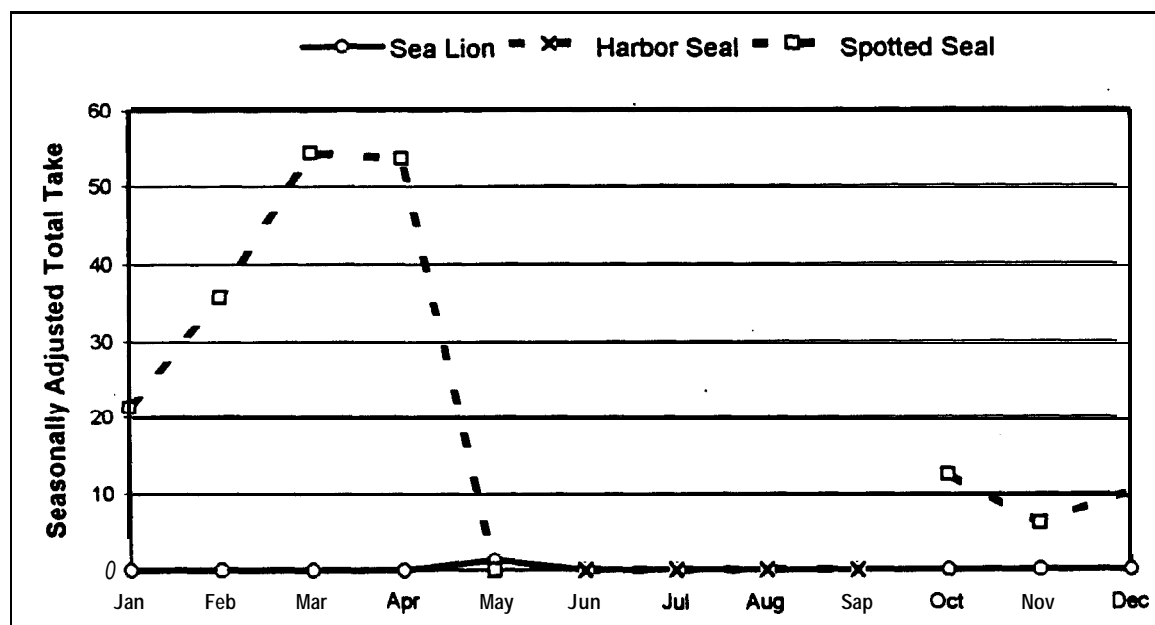
	Spotted Seal					Harbor Seal				Spotted Seal			Unknown Month	Total	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)															
Harvest	12	17	30	30	0	0	0	0	0	7	4	5	0	105	
Struck & Lost	3	6	7	5	0	0	0	0	0	2	1	1	0	25	
Total Take	15	23	37	35	0	0	0	0	0	9	5	6	0	130	
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	17.7	25.4	42.6	45.9	0.0	0.0	0.0	0.0	0.0	0.4	4.0	9.3	0.0	154.2	
Struck & Lost	3.6	10.5	11.7	7.7	0.0	0.0	0.0	0.0	0.0	4.1	1.2	1.2	0.0	39.9	
Total Take	21.3	35.9	54.3	53.6	0.0	0.0	0.0	0.0	0.0	12.5	6.0	10.5	0.0	194.1	
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)															
Harvest	17.7	25.4	42.6	45.9	0.0	0.0	0.0	0.0	0.0	6.4	4.0	9.3		154.2	
Struck & Lost	3.6	10.5	11.7	7.7	0.0	0.0	0.0	0.0	0.0	4.1	1.2	1.2		39.9	
Total Take	21.3	35.9	54.3	53.6	0.0	0.0	0.0	0.0	0.0	12.5	6.0	10.5		194.1	
Total Take (%)	11.0%	16.5%	26.0%	27.6%	0.0%	0.0%	0.0%	0.0%	0.0%	6.4%	3.1%	5.4%		100.0%	
Cum. Take	213	57.2	111.5	165.1	165.1	165.1	165.1	165.1	165.1	1776	183.6	194.1			
Cum. Take (%)	11.0%	29.5%	57.5%	65.1%	65.1%	65.1%	85.1%	65.1%	65.1%	91.5%	94.6%	100.0%			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seal in Alaska, with assistance from the Togiak Traditional Council, 1994

Table 69. (cont.) SEA LION, SPOTTED SEAL, AND HARBOR SEAL HARVEST: Togiak, 1994**HARVEST BY AGE AND SEX**

	Sea Lion				Harbor Seal				Spotted seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	0	—	0.0	—	17	16.2%	23.7	15.4%
Adult Female	0	0.0%	0.0	0.0%	0	—	0.0	—	17	16.2%	20.4	13.2%
Adult Unknown Sex	0	0.0%	0.0	0.0%	0	—	0.0	—	12	11.4%	14.4	9.3%
Juvenile Male	1	100.0%	1.2	100.0%	0	—	0.0	—	17	16.2%	30.3	19.7%
Juvenile Female	0	0.0%	0.0	0.0%	0	—	0.0	—	7	6.7%	10.1	6.5%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	0	—	0.0	—	26	24.8%	44.5	28.8%
Pup Male	0	0.0%	0.0	0.0%	0	—	0.0	—	4	3.8%	4.0	3.1%
Pup Female	0	0.0%	0.0	0.0%	0	—	0.0	—	1	1.0%	1.2	0.0%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	—	0.0	—	1	1.0%	1.2	0.0%
Male Unknown Age	0	0.0%	0.0	0.0%	0	—	0.0	—	0	0.0%	0.0	0.0%
Female Unknown Age	0	0.0%	0.0	0.0%	0	—	0.0	—	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	—	0.0	—	3	2.9%	3.6	2.3%
Total	1	100.0%	1.2	100.0%	0	—	0.0	—	105	100.0%	154.2	100.0%

* Harvest in unknown months is not included in the sample harvest, but is included in the community estimate column.

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION, HARBOR SEAL, AND SPOTTED SEAL**ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR**

SEA LION				HARBOR SEAL				SPOTTED SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	3.9	0.0	3.9	1992	24.3	2.0	26.3	1992	250.2	53.8	304.0
1993	3.3	3.3	6.5	1993	24.9	15.8	40.7	1993	174.7	49.1	223.8
1994	1.2	0.0	1.2	1994	0.0	0.0	0.0	1994	154.2	39.9	194.1

SOURCE Alaska Department of Fish and Game, Division of Subsistence, Subsistence Study and Monitor System for Sea Lions and Harbor Seals In Alaska, with assistance from the Togiak Traditional Council, 1994.

